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ABSTRACT

This report is one of a series based on a longitudinal study of the postsecondary education and careers of the college freshmen of 1961 and 1966. Findings are categorized into three areas: baccalaureate completion, graduate study, and employment patterns. Regarding baccalaureate completions, highlights indicate: (1) Among the 705,512 freshmen who enrolled at 4-year college or universities in 1961, over half received a bachelor's degree within four years. (2) Among the 1,309,524 1966 freshmen, just under half received a bachelor's degree within four years of college entry, but about 60 percent earned the bachelor's degree by 1971. (3) Women completed undergraduate study more quickly than men: two-thirds of the 1961 and over half of the 1966 women received a bachelors degree within four years, compared to less than half of the men in each group. Highlights of graduate study indicated: (1) Over half of the 1961 freshmen had enrolled for advanced study at some time. (2) Among the 1966 freshmen, 29 percent (404,148) had enrolled in graduate or professional school by the time of the followup survey (1971). Employment patterns suggest: In 1967, 67 percent of the 1961 group and 58 percent of the 1966 group were employed full-time. Teaching and business were the most popular current (and long-run) employment choices of both groups. Statistical data and additional findings are indicated. (Author/PG)

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Five and Ten Years After College Entry:
1971 Followup of 1961 and 1966 College Freshmen

Elaine H. El-Khawas
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AMERICAN COUNCIL ON EDUCATION

Roger W. Heyns, President

The American Council on Education, founded in 1918, is a council of educational organizations and institutions. Its purpose is to advance postsecondary education and educational methods through comprehensive voluntary and cooperative action on the part of American educational associations, organizations, and institutions.

The Council's Office of Research was founded in 1965 under the direction of Dr. Alexander W. Astin, who established the *ACE Research Reports* as a means of communicating the results of the Council's Cooperative Institutional Research Program to the academic scientific community. The Office of Research was discontinued in September 1973, when Dr. Astin joined the faculty of the University of California, Los Angeles. The research program is being continued there under his leadership, including the annual surveys of entering freshmen which ACE supports under a contract with UCLA.

The Office of Research has been replaced by two new ACE units whose activities are more specifically oriented towards ACE's policy-related interests: the Policy Analysis Service and the Division of Educational Statistics. The latter's primary mission is to provide information resources in support of the policy and planning activities of the Council and other organizations concerned with postsecondary education. Among these resources is a data bank of computer tape files which is operated by the Division's Data Resources Center. The data bank includes files from the CIRP surveys and the reformatted HEGIS files produced by the National Commission on the Financing of Postsecondary Education.

The Division of Educational Statistics has assisted in the completion of several projects that were underway in the Office of Research at the time of its dissolution. These services have included data-processing and supervision of the publication of reports. The present report is one of these publications, which is being issued under the Division's aegis in the *ACE Research Reports* series.

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HIGHLIGHTS

Baccalaureate Completion

- Among the 705,512 freshmen who enrolled at four-year colleges or universities in 1961, over half received a bachelor's degree within four years. A good many of the others did eventually complete their baccalaureate work; by 1971, four out of five held a bachelor's degree (Tables 10 and 20)[1].

- Among the 1,309,524 1966 freshmen (a cohort including those enrolling at two-year colleges), just under half received a bachelor's degree within four years of college entry, but about 60 percent earned the bachelor's by 1971 (Tables 10 and 20)[2].

- In both cohorts, the majority of those who had not earned a bachelor's degree indicated that they had not yet ended their undergraduate studies; 10 percent or less felt that they had actually terminated their studies with no degree (Tables 10 and 12). In both cohorts, one-fourth of the dropouts left college within 16 months; peak attrition occurred two years after matriculation (Table 24).

- Women completed undergraduate study more quickly than men: two-thirds of the 1961 women and over half of the 1966 women received a bachelor's degree within four years, compared to less than half of the men in each cohort (Table 10). Women in both cohorts also achieved substantially higher undergraduate grade point averages than men (Table 33).

Graduate Study

- Over half of the 1961 freshmen (366,359) had enrolled for advanced study at some time (Table 14). Of these, a third began their advanced study in 1965, one-fifth in 1966, and one-tenth in 1967 (Table 23). Most of the full-time enrollment was concentrated in the three years between 1965 and 1967 (Table 17). Only 7 percent of the 1961 freshmen who ever enrolled (or 4 percent of all 1961 freshmen) were currently enrolled for graduate studies, mainly at advanced stages of Ph.D. or professional degree programs (Table 96).

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[1] The number who indicated receipt of the bachelor's degree (541,548) is 77 percent of the total 1961 cohort (705,512) and 80 percent of those who answered the question (675,434).

[2] The number who indicated receipt of the bachelor's degree (790,615) is 57 percent of the total 1966 cohort (1,309,524) and 62 percent of those who answered the question (1,271,684).

HIGHLIGHTS (Con't.)

- Among the 1961 freshmen who had gone on for advanced study, 55 percent had earned some advanced degree by 1971. Most of these had earned a master's degree (39 percent), and only 5 percent were Ph.D. recipients. Another 6 percent had law degrees, 3 percent had medical degree (M.D.), and 2 percent held D.D.S. or D.V.M. degrees (Table 106). For the 1961 cohort as a whole, therefore, 9 percent of all freshmen beginning college in 1961 had earned Ph.D. or professional degrees by 1971, and 29 percent had earned at least a master's degree (Table 11).

- About 10 percent of the 1961 cohort changed their graduate major and about 20 percent transferred between graduate or professional schools; however, the proportions making such changes generally amounted to only 2 or 3 percent each year (Table 23).

- Students in health fields in both cohorts reported relatively rapid progress in their studies. They tended to enter graduate or professional school earlier than those in other fields (Tables 101 and 102). In the 1961 cohort, relatively many had received advanced degrees by 1971 (Table 106).

- Most of those in both cohorts who completed their studies at the master's degree level had majored in education, business, humanities, or in such other fields as library science or physical education (Table 109).

- Among the 1966 freshmen, 29 percent (404,148) had enrolled in graduate or professional school by the time of the 1971 followup survey (Table 14). Of these, most were currently enrolled (60 percent), and only 7 percent had earned an advanced degree (Table 97).

- In the 1961 cohort, fewer women than men had enrolled for advanced study (Table 10). This pattern was evident in terms of immediate enrollment for advanced study (19 percent of women versus 25 percent of men had enrolled within 4 years after college entry, Tables 21 and 22) as well as in terms of the longer perspective: by 1971, the differential remained, as 46 percent of women and 57 percent of men had gone on for advanced study (Table 10).

- Findings for the 1966 cohort may suggest a change in this pattern. Similar proportions of women and men (17 versus 18 percent) had enrolled within four years of college entry (Table 21) as well as by 1971 (28 percent of women versus 30 percent of men) (Table 10).

- With regard to financial support for first-year of advanced study, most students in both cohorts relied mainly on their own personal resources, either savings or family support (cited by two-fifths as their major source) or their own employment (cited by one-fourth of both cohorts). One-fifth of graduate students had fellowships or scholarships as their main source of first-year financing (Tables 133 and 134).

HIGHLIGHTS (Con't.)

- In physical sciences and biological sciences, one-third of graduate students in the 1961 cohort held fellowships or scholarships as their main first-year source of support; for the 1966 cohort, a smaller proportion of students in these fields (one quarter) held fellowships or scholarships as the main source of first-year support (Tables 135 and 136).
- Most graduate students in the two cohorts never took out any loans to support their studies: At most, 5 percent had incurred debts of $4,000 or more for their undergraduate or graduate education (Tables 144 and 145), However, more than half indicated that, if necessary, they would accept moderate loans to finance their education (Table 151).

Employment Patterns

- In 1971, 67 percent of the 1961 cohort and 58 percent of the 1966 cohort were employed full-time (Tables 6 and 7). Teaching and business were the most popular current (and long-run) employment choices of both cohorts.
- Among 1961 cohort members of the labor force, 21 percent were elementary or secondary school teachers, and 22 percent were businessmen; another one-fifth cited a professional occupation, including lawyer (4 percent), physician or dentist (1 percent), engineer (6 percent), physical scientist (2 percent), college or university teacher (4 percent), and other professional (6 percent) (Table 37).
- 1966 freshmen who were currently employed tended to be in nonprofessional occupations; 25 percent of the women devoted a major amount of time to secretarial-clerical duties (Table 49). One-third of 1966 freshmen (compared to 15 percent of the 1961 freshmen) viewed their current jobs as temporary (Table 54).
- The 1961 freshmen were more satisfied with their current employment than were the 1966 freshmen, as evidenced in the higher proportions of the early class who wanted to remain on their job longer (59 versus 49 percent), considered their job a good one (81 versus 67 percent), and thought their job fit in with their own long-range goals (76 versus 57 percent) (Table 54).
- More of the 1966 freshmen experienced difficulty in finding work (27 versus 16 percnet of the 1961 freshmen) and more thought that they were working for a salary considerably lower than their own qualifications would deserve (36 versus 23 percent) (Table 54).

HIGHLIGHTS (Con't.)

- Employment patterns of men and women in the 1961 cohort differed considerably. Because women completed their studies earlier than men, they entered the labor force earlier. Until seven years after college entry, the proportion of 1961 women in the labor force was greater than the proportion of men. However, the ratio of working women to working men shifted greatly over time as some women married and devoted themselves increasingly to home and child care, while men finished up their studies and military duties and pursued careers (Tables 18 and 19).

- The 1966 women displayed greater commitment to early career development than did the 1961 cohort women. One-third of the 1966 women, compared to one-fourth of the 1961 women, indicated that they preferred to combine housewife activities with regular employment. Relatively few in either cohort wanted or expected to be involved exclusively with either employment or housewife duties. In both cohorts, educational attainment and aspirations were associated positively with career commitment among women (Table 82).

Preface

This report is one of a series based on a longitudinal study of the postsecondary education and careers of the college freshmen of 1961 and 1966. The study, supported by Contract OD-72-2029 from the National Institutes of Health and by Grant GR-101 from the National Science Foundation, represents a milestone in the history of the Cooperative Institutional Research Program (CIRP) at the American Council on Education (ACE), in that it is the first longitudinal study of college students encompassing a ten-year span.

Alexander W. Astin, then Director of the Office of Research at ACE, was the principal investigator for the project. He supervised the creation of the data files and personally developed the weighting procedures. It is he who deserves credit for initiating this valuable longitudinal survey research with the 1961 freshmen and for establishing and guiding the CIRP program at ACE. The project director was Helen S. Astin, then Director of Research and Education at the Center for Human Services (CHS) of the University Research Corporation. All analyses were conducted under her supervision and guidance through a subcontract from ACE to CHS.

At the time this report was written, the authors, Elaine H. El-Khawas and Ann S. Bisconti, were Research Associates at CHS. They wish to express their gratitude to Jean Ann M. Taylor of the National Institutes of Health for her collaboration in developing specifications for the analysis and to Charles Fletcher for performing the complicated and extensive data processing tasks with skill and patience. Mary Guinn, Marcia Shumate, and Diane Dutton were very helpful in setting up tables and typing the manuscript, as was Jeannie T. Royer in supervising the final production stages. Our special thanks go to A. W. and H. S. Astin, who have advised and encouraged the authors not only on the present study but also over the past five years.

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Five and Ten Years After College Entry:
1971 Followup of 1961 and 1966 College Freshmen

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Introduction

This report is based on a 1971 followup study of the educational and career progress of college students. Two college classes are examined, freshmen of 1961 and freshmen of 1966. In the fall of 1961, a nationally representative sample of freshmen at 248 institutions of higher education were surveyed.[1] Samples of these same students were followed up in 1962 and again in the summer of 1965, approximately four years after matriculation. Findings of the 1965 survey appear in the volume, The Educational and Vocational Development of College Students (Astin and Panos, 1969). This first longitudinal study served as a model for the Cooperative Institutional Research Program (CIRP) of the American Council on Education (ACE), through which freshmen at 307 institutions were surveyed in 1966 and followed up approximately four years later in the summer of 1970.

The 1971 followup study, funded by the National Institutes of Health (NIH) and the National Science Foundation (NSF), enables an assessment of the progress of the freshmen classes over the period of five and ten years respectively, since their college entry. In addition to monitoring patterns of educational and career development, the longitudinal design makes it possible to discern changes in student attitudes, behaviors or plans, as well as to isolate determinants of such changes and outcomes.

This report presents a detailed descriptive account of the status of the two cohorts at the time of the 1971 followup. It is organized according to twelve topic areas, with a short narrative preceding the tables that are included in each section. The first section provides basic data on educational status as of late fall in 1971 and early 1972. It includes activities, degree status and plans, and characteristics of those who enrolled and those who did not enroll for graduate or professional study. The following sections examine patterns of activities over time, undergraduate study, employment, unemployment, and career aspirations. Findings with respect to advanced study[2] are presented and highlighted in the sections on patterns of graduate enrollment, graduate study progress, graduate school experiences, and financing of graduate education.

It should be noted that this report on the 1971 followup of the 1961 and 1966 freshmen cohorts is intended to provide an overview of the data and to give analysts some insight as to which lines of future inquiry would be most productive. The data do have certain limitations. Due to time and funding contraints, it was not possible, for the present report, to perform additional analyses which might have answered some of the questions raised by our cautionary notes regarding these limitations.

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[1] This 1961 survey was conducted under the auspices of the National Merit Scholarship Corporation, Evanston, Illinois.

[2] Advanced study refers both to graduate study and study in professional schools such as medical or law schools.

Sampling Procedures

The two samples for the 1971 followup survey, each of about 60,000, were subsamples drawn from the much larger total file for freshman respondents. The same samples had also been the basis of the senior-year followup surveys. Major features of the overall sampling scheme are best discussed for each cohort separately.

The 1961 cohort file includes 127,212 men and women representing, with few exceptions, the entire entering classes of a sample of 248 colleges and universities. The sampling universe for this 1961 cohort was all accredited, four-year institutions listed in the 1962 Education Directory, Part II of the U. S. Office of Education. The only stratification criterion was the Ph.D. productivity of the institution, with highly productive institutions over-sampled. A more complete description of sampling procedures is reported in Who Goes Where to College (Astin, 1965).

In the fall of 1966, a similar assessment was undertaken of 254,480 freshmen entering a sample of 307 institutions. The sampling universe for this survey included nearly all institutions (two-year colleges, four-year colleges, and universities) listed in the 1965 Education Directory, Part III of the U. S. Office of Education; the only exception involved exclusion of institutions enrolling fewer than 25 full-time first-time entering freshmen. The stratification scheme for this freshman survey is reported in more detail in National Norms for Entering College Freshmen - Fall 1966 (Astin, Panos, and Creager, 1966).

It should be noted that the total population files for both the 1961 and 1966 cohorts were recently restratified according to an identical scheme more fully described in National Norms for Entering College Freshmen - Fall 1968 (Creager, Astin, Boruch, and Bayer, 1968). This restratification, on which all data in the present report are based, was done in order to control possible institutional sampling errors, and in order to make the weighted data from the two cohorts more comparable.

The new stratification scheme includes separate cells for two-year colleges, four-year colleges, and universities (with four-year colleges further stratified by type of control), and a new, separate cell for predominantly black colleges. These improvements in stratification procedures exert additional control over possible sampling errors with respect to student ability, race, and religious background -- three variables which have been shown in many earlier studies to be substantially related to the student's career choice and educational development (Astin and Panos, 1969; Astin, Astin, Bisconti, and Frankel, 1972; and Rossmann, Astin and El-Khawas, 1974).

For the senior year followup survey, and again for the 1971 followup, subsamples of approximately 60,000 freshmen were drawn from each total population file. For small institutions (enrolling fewer than 300 students in their freshman classes), all students were included in the sample; for larger institutions, samples of approximately 250 students (every Nth subject) were included in the sample.

Mailing Procedures

One of the main tasks undertaken in preparation for the formal mailing of questionnaires (1971-72) was a systematic attempt to obtain more recent addresses for members of the 1961 cohort, since the name and address file, containing, for the most part, parental addresses given us in 1961, was likely to be no longer useful for a good portion of the sample.

Thus, during the summer of 1971, we sought the assistance of the alumni offices for each institution in our sample. We sent each institution a list of the names and addresses of our sample participants, with a request that they try to provide us with more recent addresses, as well as corrections such as name changes for married women students. The response to this effort was quite interesting in itself. Although almost all of the institutions were able to help us, the alumni offices varied markedly in the extent to which they kept in touch with their students. At some small colleges, staff members referred to students on a first-name basis, indicating their address changes with as much familiarity as if speaking of friends or relatives. At larger schools, assistance in updating addresses was provided by alumni directories or by elaborate computer runs. It was also interesting to note that the proportion of updated addresses we received varied considerably among institutions: Small colleges had the best records, whereas large institutions, especially state universities, had the poorest results. In all, the alumni offices proved very helpful to our efforts and were able to provide new addresses for more than half of our sample.

A slightly different approach to address correction was undertaken with respect to the 1966 freshmen. A few weeks prior to the formal questionnaire mailout, we sent a one-page newsletter, summarizing data which had been obtained from this cohort of students during the summer of 1970 (see Appendix A). This newsletter was intended to promote student readiness to fill out the 1971 followup questionnaire. It also served as a means of updating addresses, in order to insure a better rate of response.

First-Wave Mailing

In November, 1971, a total of 58,839 questionnaires were mailed to the 1966 cohort and 60,307 questionnaires to the 1961 cohort. About ten days later, a reminder postcard was sent to all subjects, requesting prompt return of the questionnaire. Questionnaires were generally sent out at nonprofit rate with a stamped return envelope enclosed, in which the respondent was to mail back the questionnaire. For the 1966 cohort, special mailing procedures were conducted, described in more detail in Appendix B. Because we had expected problems of nondelivery due to incorrect addresses, we had indicated "Address Correction Requested and Return Postage Guaranteed" on the outgoing envelopes.

Initial returns were slow, undoubtedly due in part to the December "busy season" for both the postal office and our respondents. After a month, returns were at about 23 percent for each cohort; at the same time, as many as 13 percent of the 1966 questionnaires and 22 percent of the 1961 questionnaires (7,765 and 13,296, respectively) had been returned by the post office as "undeliverable".

Second-Wave Mailing

By the time of the second-wave mailout (late December for the 1966 cohort, early February 1972 for the 1961 cohort), response was about 27 percent, with nondeliverables amounting to 25 and 15 percent, respectively, for the 1961 and 1966 cohorts. In the second mailing, questionnaires were sent out to all sample participants who had not been heard from on the first mailout (either by return of completed questionnaires or by "undeliverable" returns from the post office). In all, the second-wave mailings boosted response to 37 percent for 1961 cohort, and to 42 percent for the 1966 cohort.

Third-Wave Mailing to Nondeliverables

Despite the improved rate of response after two completed questionnaire mailings, the large volume of nondeliverables continued to be a source of concern and a major factor in nonresponse. For the 1961 cohort, especially, the proportion of questionnaires returned as undeliverable almost equaled the proportion of completed questionnaires that were returned.

In late February, with the help of additional NIH funding, we decided to authorize a third mailing, in which complete questionnaires were sent via first-class mail to all addresses previously labeled "nondeliverable". During the week of February 22, 1972, 13,545 questionnaires were sent out to members of the 1961 cohort and 9,005 questionnaires were sent to members of the 1966 cohort. We had expected that a good portion of these questionnaires would reach sample members by this method and, indeed, it turned out that only about half of the questionnaires were again returned as undeliverable. Of the other questionnaires which reached sample members, we received completed questionnaires from about a third in each cohort; overall, the third mailing had thus added an additional 2,161 respondents for the 1961 cohort and 1,673 additional respondents for the 1966 cohort.

As a result of all of these procedures, completed questionnaires were returned by 24,590 members of the 1961 cohort, and by 26,618 members of the 1966 cohort. For the 1961 group, these returns represent 40.8 percent of all questionnaires mailed, or 56.3 percent of all questionnaires that reached the addressee; similarly, returns for the 1966 group represent 45.2 percent of all questionnaires mailed, or 54.6 percent of all questionnaires that reached the addressee.

Weighting Procedures

The data collected in the followup surveys were subjected to a number of weighting procedures before being analyzed. In brief, three sets of weights were generated: The first set -- the respondent weight -- was used to compensate for systematic differences between students who did and did not complete and return the mailed questionnaires. Potential sources of error due to nonresponse bias were thus eliminated by this weighting technique. The second set -- the within college weight -- represents a ratio between the total number of first-time freshmen entering each college (in either 1961 or 1966) and the total number of questionnaires mailed out. These weights, computed separately by sex, correct for differential sampling within institutions (as was noted previously, all students were included from small schools, while samples were taken from larger institutions). The third set -- the institutional weight -- was designed to adjust for disproportionate sampling of institutions fron stratification cells, using the 35-cell stratification design from which the sample of institutions was originally drawn (Creager, 1968). Institutional weights consisted of the ratio between the total number of first-time freshmen entering all institutions in the population in a particular cell and the total number of first-time freshmen entering our sample of the institutions in that cell. This weight was also calculated separately by sex.

Correcting for Nonresponse and Differential Sampling Within Institutions

Because extensive prior data are available on all subjects in the followup samples (i.e., data obtained when they entered college as freshmen), it was possible to determine some of the ways in which respondents and nonrespondents differ. A subsample of each cohort was randomly selected as the basis for a stepwise multiple linear regression analysis to isolate the factors associated with response to the survey. In this analysis, responding to the followup questionnaire versus not responding served as the dependent variable. Each cohort was analyzed separately. For the 1961 cohort, 114 items were selected as independent variables; most were taken from the earlier questionnaire administered to the student during the freshman registration period, while additional variables were created from our information on whether a student had responded to two earlier followups. For the 1966 cohort, 135 independent variables were utilized; most were taken from the freshman questionnaire but, in addition, registrar's data on the degree status of students as of 1970 were available and also utilized.

In the regression analysis, each independent variable was entered into the regression in a stepwise fashion until no additional item was capable of producing a significant ($p=<.05$) reduction in the residual sum of squares of the dependent variable. The items which entered the regression under these conditions were considered sources of bias in response rates (see Tables 1 and 2). The factors found to bias response rates included precollege academic achievement, socioeconomic background, and several personal or motivational variables (e.g., degree aspiration, self-ratings, life goals). For the 1961 cohort, the variable that best predicted response to the 1971 followup was having responded to the 1965 followup. Sex, high school grade average, and father's level of education were the best predictors of response in 1965. (For more detail, see The Educational and Vocational Development of College Students, Astin and Panos, 1971).

With the information thus obtained, a differential weight was computed for each respondent, based on all variables that entered the analysis, so that the data for those respondents who most resembled nonrespondents in terms of freshman input variables were given the greatest weight. Notably, this method of correcting for nonresponse-biasing variables makes it possible to take into account all biasing input variables. (For more information, see Astin and Molm, 1972).

The respondent weight was then multiplied by the second set of weights (i.e., the within-college weight). The product of these two results in an enlarged N that equals the total number of first-time, full-time freshmen entering the institutions sampled. These weights produce data representative of all students enrolling in the sample of institutions.

As a further step, the product of the first two weights was then multiplied by the third -- the institutional weight -- to yield a final population weight. This was applied to the data in order to produce weighted tabulations that approximate population distribution parameters. The weighted tabulations form the basis for this report.

As seen in Table 3, the 1961 cohort weighted total is 705,512, and the 1966 cohort weighted total is 1,390,524. *This* population difference between the two cohorts is due (a) to an increase in the number of freshmen entering colleges and universities; and (b) to the inclusion of two-year institutions in the 1966 sampling *universe: 25% of the 1966 cohort entered two-year colleges.* Table 3 also shows the weighted and unweighted distributions of respondents by race. Identification of race was possible for most of the 1966 cohort. *However*, race information could not be linked to the records of the approximately 40 percent of the 1961 cohort who did not respond to the 1965 followup survey. Consequently, analyses based on the race of 1961 freshmen were necessarily performed with a reduced N. Moreover, the analyses by race for the 1961 cohort are somewhat biased toward respondents with high past achievements and future aspirations, factors associated with response to *both followups*. For example, the level of degree aspirations for both white and black respondents (Table 13) is higher than that indicated by the cohort as a whole (Table 12).

Comments on Interpretation and Use of the Data

A major objective of this study was to examine the educational and career achievements of these two cohorts of students following the undergraduate years, with particular attention to the academic progress and financial arrangements of those who went on for advanced study. Therefore, a large portion of the tabulations shown here were performed separately for students who reported different levels of educational attainment and educational aspirations. (See Tables 3-5 for weighted and unweighted N's for these key analysis subgroups).

The primary distinction was made between respondents who indicated that they had enrolled at some time for advanced study and those who had never enrolled for advanced study. The cirteria for inclusion of respondents in the advanced study enrollment group were purposely expansive. That is, in order to obtain the largest possible base for these first analyses relating to experiences and progress in graduate school, respondents were included in the advanced study group *if they gave an appropriate response to any one of the following items:*

- indicating a year that they enrolled for graduate study
- having completed one semester or more of graduate study
- ever having been a full-time or part-time graduate student or a medical student (For the 1961 cohort, anyone who reported having been a medical intern, resident, or postdoctoral fellow was also included)
- currently holding a Master's, Ph.D., D.D.S., D.V.M., L.L.B., or J.D. degree

All respondents who did not meet one of these four criteria were classified as "never enrolled for advanced study."

More detailed distinctions were also made within these two groups. An index was specified in order to distinguish between advanced study enrollees with different levels of educational degree attainment and aspirations. The process of deriving this index is shown in Figure I. All subgroups in this index stem from a primary separation of students who were "currently" enrolled for advanced study (i.e., students whose current activities included being a full-time or part-time graduate student or a medical student) and students who were not currently enrolled. It should be noted that because of differences in questionnaire working, the "currently enrolled" group among the 1961 cohort includes only those who gave advanced study as their primary current activity, whereas the 1966 respondents thus classified gave advanced study as one of their current activities. Consequently, the "currently enrolled" category is more restrictive for the 1961 cohort than for the 1966 cohort.

Respondents who were not currently enrolled were classified either as having interrupted or having completed their advanced studies at different stages of educational attainment. Thus, all respondents not currently enrolled for advanced study and who planned eventually to obtain a higher degree than their present highest degree held -- the "interrupted" group -- were differentiated from those who did not seek a higher degree than that presently held. While complex, this index enables the reader to compare the experiences and progress of, for example, master's recipients who permanently ended their undergraduate studies and master's recipients who planned to obtain a Ph.D. or professional degree in future years. Similar comparisons can be made between students who failed to receive an advanced degree but planned to re-enroll in graduate school and students with no advanced degree who did not plan to resume their studies (the dropout group in the strictest sense). These advanced degree index categories are identical for both cohorts with one exception: The 1961 cohort index includes the category "completed studies with a Ph.D. or professional degree". This category was not applicable to the 1966 cohort just five years after the freshman year.

In order to ascertain the highest degree to which a respondent aspired, it was necessary to create a new variable, "highest degree planned ever". Both 1961 and 1966 questionnaires asked for:

- highest degree now held
- degree working toward
- highest degree planned by 1975
- highest degree planned after 1975

Early tabulations indicated that some respondents viewed this question set as cumulative. For example, among those who already held a Ph.D., some indicated that the degree they planned after 1975 was a Ph.D., whereas others checked "none" since they did not expect to obtain the Ph.D. after 1975. The new variable, "highest degree planned ever", represents the highest degree indicated in any of the four parts of the question set.

At this point, two categories of respondents were excluded from the analyses based on the advanced study index because they could not be classified: 1) those who gave no response to the question on their highest degree held; and 2) those whose highest degree planned or held was "other". Because the new variable, "highest degree ever", was defined cumulatively, those who gave only the highest degree held were classified with the highest degree ever to equal the highest degree held. Thus, if they were not currently enrolled for advanced study, they were counted among those did not plan to pursue their studies further.

Analyses relating to respondents who ever enrolled for advanced study were also performed separately by graduate major field of study. The classification for major fields of study is shown in Appendix C. This report focuses on field groupings which are of particular interest to the National Institutes of Health and the National Science Foundation: biological sciences, physical sciences and mathematics, health fields, and social sciences. All other majors were grouped in a residual "other" category. About 60 percent of graduate enrollees in both cohorts were classified in this "other" category. Those who gave no graduate major -- about one-fifth of graduate enrollees in both cohorts -- dropped out of the analysis by field, but it should be remembered that they were included in the "ever enrolled" totals. Thus, the numbers in the analyses by field add to less than the totals for all who ever enrolled for advanced study.

As seen in Tables 4 and 5, respondents who gave no graduate field of study were, for the most part, those who held no advanced degree. In both cohorts, two-thirds of the "drop-out" group and about one-fifth of those who interrupted their studies with no advanced degree did not indicate a graduate major. One possible explanation is that because they left without obtaining any advanced degree, such respondents no longer identified strongly with a particular field of study. It is also possible that many of these respondents had only temporary nondegree experiences with graduate education (e.g., one or two courses) and, therefore, did not identify with a major. A third explanation is that some may have attended graduate school in conjunction with their undergraduate studies or were enrolled in a combined undergraduate-graduate program.

The results of our first tabulations with the advanced study index by field revealed that a number of medical students, interns, and residents, as well as some with M.D. degrees, had either failed to mark a graduate major or had marked a major other than health fields. The specifications were revised to move these persons into health fields for the analyses. However, it should be noted that other possible discrepancies still exist (e.g., some persons who said they were working toward an M.D. degree checked a biological science major).

Respondents classified as having never enrolled for advanced study were also separated for these analyses into four subgroups representing different levels of educational attainment and aspirations. This classification was based on two items: 1) whether the highest degree held was a bachelor's degree or less; and 2) whether the respondent indicated plans to enroll for graduate study in the future (Q. 22 on the 1971 followup form of the 1961 cohort). Nonrespondents to either question were excluded from the index. Those who marked "other" as their highest current degree were classified as holding less than a bachelor's degree. The resultant groupings enable comparisons of advanced study aspirants with those who planned no advanced study, as well as with those who already enrolled in graduate or professional school. Furthermore, they permit comparisons between respondents who had completed their undergraduate studies and those who had not. Major field of study breaks were not employed with those who never enrolled for advanced study, even though persons who planned to attend graduate school in the future were asked to indicate their expected field.

In addition to these combined variable indices, other refinements of the questionnaire response were undertaken in order to present the findings within precise and meaningful dimensions. In some instances, questions were answered by persons who were instructed to skip them. Such responses were eliminated from the analyses. In other instances, imprecision in the questionnaires -- necessitated by the constraint of fitting a maximum number of question items into a manageable form -- required special tabulations on combined variable bases or additional crosstabulations. For example, the question on "year received a bachelor's degree or otherwise ended undergraduate studies" was cross-tabulated against the highest degree held in order to separate bachelor's and associate degree recipients from dropouts.

Current Status

This examination of the educational and occupational development of 1961 and 1966 freshmen depicts the two cohorts at important and different crossroads. The earlier class would be expected, for the most part, to have completed their formal schooling and to be asserting themselves in the occupational sector. The more recent class, on the other hand, would be closer to the beginning of advanced study or the start of their careers. The tables in this section provide an overview of the status of the two cohorts, including their activities in 1971 and their educational attainment and aspirations.

Tables 6 and 7 show the current activities of the two cohorts. Some caution is necessary in comparing the cohorts regarding their current activities, since the 1961 freshmen were asked to mark their single primary activity, while the 1966 freshmen were asked to indicate all of their current activities. However, less than half of the 1966 cohort gave more than one activity, and it is probable that most of the secondary responses fall in the categories of part-time study, part-time employment, or unemployment. In addition, among 1966 women, it is likely that some of those who marked "housewife" may have given other responses, since the percentage who marked this activity was equal for the two cohorts (37 percent) while many more of the 1961 women were married (Table 9). Categories such as full-time work and study are probably more comparable, and the findings in these categories do suggest differences between the two cohorts which reflect the five years separating them.

As expected, most of the 1961 freshmen indicated that they had completed their academic training and were currently employed (Table 6).

Among the men, 80 percent were working full-time, about eight percent were primarily involved as students, and another five percent were in the military service. Fewer women (47 percent) were employed full-time, although an additional nine percent cited part-time employment as their primary activity.[3] Over one-third of the women were housewives, and only about four percent were students.

Although a majority (58 percent) of the 1966 cohort was working full-time, sizable proportions were involved in other activities. One-third were still students (about half at the undergraduate level and half at the graduate level), and 13 percent of the men were engaged in military duties. More women than men were involved in full-time work or part-time graduate study, but fewer women were full-time graduate students.

Black 1961 freshmen were concentrated in work activities more than their white classmates: 75 percent were employed full-time and eight percent part-time (Table 8).[4] A smaller proportion of 1966 black women marked "housewife" (17 percent of black women compared to 37 percent of white women).

The racial groups in the 1966 cohort tended to cite a greater number of current activities than did whites. Apparently, the minorities maintained a more amibitious schedule, or, because of economic reasons, they had to work while studying. Compared to whites in the 1966 cohort, more blacks were both working and studying, and more Orientals and American Indians were students. Orientals included the largest proportion of full-time graduate students (13 percent), and American Indians the largest proportion of full-time undergraduates (26 percent).

Table 10 presents the numbers and percentages of students in each cohort who had attained various educational levels. Because the percentages are based on all students (including those who gave no response regarding their educational attainment), the figures are conservative estimates. Only about six percent of both cohorts reported ending their undergraduate studies without obtaining a degree. In fact, the majority of those without a baccalaureate degree or with an associate degree indicated that they had not yet terminated their studies. (See Table 11 for the number and percent who held no baccalaureate degree or held an associate degree in 1971). Only three percent of the 1966 cohort planned to terminate with an associate degree although about three times as many reported this degree as their highest present attainment. It appears that, in spite of inclusions of two-year colleges in the 1966 sample, the eventual baccalaureate output of the two cohorts may be similar since many two-year college entrants transfer to four-year colleges.[5]

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[3] The number who checked full-time or part-time employment as their primary activity (438,114) is 62 percent of the total 1961 cohort (see Table 35) and 73 percent of those who answered the question (Table 6).

[4] Separate analyses for Oriental and American Indian students in the 1961 cohort were not advisable due to the small number of these racial minorities in the sample. In addition, further distinctions by sex among the 1961 black freshmen were not warranted, particularly since identification of race was not possible for 40 percent of the 1961 cohort.

[5] Preliminary analyses in a project on transfer students currently being conducted by Engin I. Holmstrom and Ann S. Bisconti for the National Institute of Education indicate that 51.9 percent of two-year college entrants transfer to four-year colleges and of those who transfer 45.7 percent receive the baccalaureate within four years of college entry.

Because of the different time frames employed and the fact that more of the recent cohort had not yet ended their undergraduate studies, 76.8 percent of the 1961 freshmen had received a bachelor's degree compared with only 56.9 percent of the 1966 freshmen. However, the difference in the proportions who received a bachelor's degree within four years (52.8 percent of the 1961 cohort compared to 45.2 percent of the 1966 cohort) probably results from the inclusion of two-year colleges in the 1966 sample, since transfer sometimes delays the completion of undergraduate studies (Table 10).

At the time of the 1971 followup, 51.9 percent of the 1961 cohort and 29.1 percent of the 1966 cohort had ever enrolled for advanced study. As expected, relatively few (two percent) of the recent class had already received an advanced degree. Among the 1961 freshmen, 21.6 percent had received a master's degree and eight percent a Ph.D. or professional degree. (Note that these degrees are not mutually exclusive.)

Although women in both cohorts were more likely than men to receive a bachelor's degree within four years, fewer 1961 women than men enrolled in graduate school and fewer received advanced degrees.

The highest levels of degree attainment reported by respondents are shown in Table 11. Twenty-nine percent of the 1961 cohort and just three percent of the recent class reported having received an advanced degree. The master's degree was the highest level of attainment for 22 percent of the men and only slightly fewer women (19 percent). However, only three percent of the women compared to 11 percent of the men had obtained a Ph.D., M.D., D.D.S., D.V.M., L.L.B., or J.D. degree.

If degree aspirations were to be actualized, the eventual outcomes of the two cohorts would be practically identical (Table 12). Only small differences existed between the classes with respect to the degrees they planned to obtain by 1975, and almost no differences existed between the two cohorts with respect to their long-range plans. Thirty-six percent of the 1961 cohort and 38 percent of the 1966 cohort aspired in the long-run to the master's level, and 14 percent and 13 percent respectively aspired to the Ph.D. Two percent of both cohorts sought the M.D. degree, one percent the D.D.S. or D.V.M. degree, and five percent a law degree.

In future years, a large proportion of the women hoped to hold master's degrees (40 percent of the 1961 cohort; 43 percent of the 1966 cohort), but fewer women than men aspired to a Ph.D. or professional degree. Among the men, 29 percent in the 1961 cohort and 27 percent in the 1966 cohort aspired to a Ph. D. or professional degree, as compared to just 12 percent and 11 percent respectively of the women. Thus, the educational gap currently existing between the sexes with respect to the receipt of Ph.D. or professional degrees may not narrow in spite of an apparent trend for increased graduate study inrollment among women (Tables 10, 21, and 22).

In the 1961 cohort, blacks were distributed similarly to whites within the various degree categories, although few held a professional degree (Table 13). However, proportionately more blacks than whites (78 percent vs. 64 percent) aspired to graduate level degree, including 30 percent who planned to obtain a Ph.D. or professional degree.

Compared to white students, fewer black 1966 freshmen had obtained the bachelor's degree by 1971, but 68 percent of the blacks and 59 percent of the whites aspired to advanced degrees. Relatively few American Indians held, or aspired to, bachelor's or advanced degrees. In fact, almost one-fourth never expected to obtain any degree. Students of Oriental background were more interested in medical degrees than other groups.

Table 14 presents descriptive data on students who ever and never enrolled for advanced study (i.e., the two groups forming the basis for many of the analyses in this report). Some differences existed between the cohorts in the sex and race composition of the advanced study group. Compared with the 1961 cohort, women and minorities comprised a larger proportion of the graduate students in the 1966 cohort, although -- even in the 1966 cohort -- 59 percent were men and 91 percent were white. Students with graduate experience were more likely to be single than those who never enrolled. This difference in marital status may be due to the predominance of men in the group who ever enrolled. As will be discussed in the following section on Patterns of Activities and Events (Table 25), the men in both cohorts married later than the women. However, other research indicates that, for both sexes, marriage exerts a negative influence on educational attainment (Bayer, 1969). Very few of either group were foreign born, although slightly higher proportions of foreign born students matriculated with the 1966 class, including 2.4 percent of the advanced study group and two percent of those who never enrolled in graduate or professional school.

Reasons given for not enrolling in graduate or professional school are seen in Table 15. The responses of many in the 1961 cohort suggest that the decision was based on lack of interest in further formal education or a desire for a temporary change of pace. Frequently given reasons were: "took a job;" "never seriously thought about it;" "decided I did not need a further degree;" and "tired of being a student." However, some cited obstacles such as not completing their undergraduate work, lacking necessary course work, or facing financial problems. A large proportion of women in the 1961 cohort (44 percent) never enrolled for advanced study because of home or child care responsibilities.

The 1966 freshmen who never attended graduate or professional school indicated somewhat different reasons for this outcome. Compared to the 1961 class, more 1966 freshmen reported wanting to reconsider their plans and goals, needing a break from academic work, and financial problems. Somewhat fewer mentioned that they felt they did not need a further degree -- hardly a surprise in view of the changing demands existing in the job market. Due to the different stages of educational progress by the two cohorts, noncompletion of undergraduate studies was a more salient reason for the recent class.

Throughout this section, it has been noted that women were less likely than men to pursue higher degrees or careers. Some clues to the basis for these disparities appear in Table 16, which presents the results of self-ratings by 1961 freshmen on a variety of traits. In their responses to this question, the women indicated relatively low intellectual self-confidence or drive to achieve. In addition, although the proportion of women with high self-ratings on academic ability was about equal to that of men, the women tended to rate themselves lower than men did on leadership ability, mathematical ability, and mechanical ability. Some of these lower self-ratings may have contributed to the lower educational and career achievement of women as evidenced throughout this report.

Patterns of Activities and Events

Retrospective questions on the 1971 followup forms enabled us to reconstruct patterns of activities of the 1961 cohort over the past seven years, as well as chronologies of the educational and occupational progress of both cohorts. In addition to providing a year-by-year history of each cohort, the chronologies permit us to compare the cohorts within the same time frame.

Tables 17, 18, and 19 show the proportions of the 1961 freshmen involved in work, study, and other activities during each of the years from 1965 to 1971. The data are also presented graphically in Figures II and III. Four years after matriculation, the majority of the 1961 cohort were no longer enrolled in undergraduate school, and the proportions of undergraduate students continued to taper off yearly. Interestingly, the same trend is noted for graduate school enrollment, with the largest proportions (15 percent) enrolled in 1965 and 1966, and a gradual decline starting in 1967. During the same years, a gradual increase occurred in the porportions who were working full-time or were housewives. The peak years for completion of military duties were 1966 and 1967.

The pattern of activities for 1961 men differed dramatically from that of their women classmates. Figure II depicts a steady progression of men from academia to the world of work. Women, on the other hand, tended to be working during the earlier years, but were devoting themselves increasingly to home care from 1967 on (Figure III).

One reason fewer women than men were students in 1965 is that women tended to complete their undergraduate studies more rapidly. By their reports, 64 percent of the 1961 women received a bachelor's degree within four years, as compared to just 50 percent of the men (Tables 21 and 22). This pattern occurred with the 1966 cohort as well: Within four years, 56 percent of the women and 45 percent of the men had received a bachelor's degree. (The smaller 1966 proportions reflect the inclusion of two-year college freshmen in the sample.) More of the men received their bachelor's degree in later years: 19 percent of the 1961 cohort and 15 percent of the 1966 cohort graduated five years after matriculation, as compared to eight percent of the 1961 women and ten percent of the 1966 women. Among the 1961 freshmen, the yearly output of bachelor's recipients declined steadily for both sexes from the sixth year to the tenth year; 14 percent of the men and just four percent of the women graduated during these years.

With respect to patterns of graduate enrollment, it appears that the majority of graduate students enrolled immediately, or soon after, completing their undergraduate degreees (Tables 20 and 23). Of those who ever enrolled for advanced study during the eight year period from 1963 to 1971, 33 percent enrolled in 1965, 21 percent in 1966, and 11 percent in 1967. Of those 1966 freshmen who entered graduate school prior to the 1971 followup, 53 percent had done so in 1970 and 41 percent in 1971.

There was a difference between the cohorts in the percentage of men and women who enrolled in graduate school within five years of matriculation. A sex differential was evident among the 1961 cohort, in which 37 percent of the men but only 30 percent of the women enrolled for advanced study within five years. Among the 1966 freshmen, however, similar percentages of men and women had entered graduate school within five years (29 and 30 percent, respectively).

For the 1961 cohort graduate students, the output of master's recipients peaked six years from college entry, and a large portion of professional degrees (M.D., L.L.B.) were granted during the seventh and eighth years. Completion of Ph.D. studies took a little longer, although small proportions received this degree from the seventh year on. The majority of those who had taken their medical internship did so during the eighth and ninth years, then went on to take their residency during the ninth and tenth years. About ten percent of the 1961 cohort changed their graduate major, and about 20 percent transferred to different schools; however, the proportions making such changes generally amounted to only two or three percent per year.

Attention is given to two patterns of special interest -- undergraduate attrition and marriage -- in Tables 24 and 25. Only 44,025 of the 1961 cohort and 93,872 of the 1966 cohort said that they had ended their undergraduate studies and held no degree. These persons represented only 39 percent of the 112,255 (1961 freshmen) and 24 percent of the 385,961 (1966 freshmen) who held no degree in 1971 (See Table 20). Others apparently were either currently enrolled in undergraduate college or were planning to return. The pattern of undergraduate attrition is curvilinear, with peak attrition occurring two years after matriculation for both cohorts: about one-fourth of the dropouts in both cohorts left college at that time.

Students in both cohorts tended to marry between the third and sixth years after matriculation as freshmen (Table 25). For both men and women, the largest proportion of marriages occurred four years after college entry (i.e., graduation year for many). However, women tended to marry somewhat earlier than their men classmates. The pattern among students who enrolled for advanced study closely resembles that of men students, although women comprised 37 percent of the 1961 advanced study group and 41 percent of the 1966 advanced study group. Those who went on for advanced studies, thus, were less likely to have married while in college.

Undergraduate Study

During the undergraduate years, talents and goals are nurtured, and vocational interests are sharpened. Any assessment of educational and career development beyond the college years, therefore, requires a knowledge of the student's preparation, not only with respect to his course of study but also with respect to his level of achievement. The tables in this section delineate the courses of study undertaken by the two cohorts, and also suggest relationships between undergraduate major, grade point average, and educational outcomes.

For these analyses, major fields of study were grouped according to categories of particular interest to the National Institutes of Health and the National Science Foundation. As was expected from our previous examination of four-year followup reports from these same students (Astin and Bisconti, 1973), the distribution within the undergraduate major fields was remarkably similar for both cohorts (See Table 26). Arts and humanities continued to draw one-fifth of the undergraduates, and business and social sciences followed next in popularity. Biological sciences and health fields were each chosen by five percent of both cohorts.

The only sizable difference between the cohorts was in the proportion of students who had majored in physical sciences and mathematics (ten percent in the 1961 cohort; six percent in the 1966 cohort). Moreover, proportionately fewer 1966 freshmen than 1961 freshmen took courses in these fields (Table 32). On the one hand, the decreased proportions who showed interest in physical sciences and mathematics might have resulted in part from the inclusion of two-year college students in the 1966 sample: Freshman aspirations for the 1966 cohort indicate that only 3.7 percent of those entering two-year colleges planned to choose these majors (Astin, Panos, and Creager, 1966). On the other hand, recent ACE studies have shown a definite trend away from physical sciences and mathematics: A senior-year followup of 1967 freshmen found that these majors were chosen by only seven percent of those who entered four-year colleges and 6.4 percent of those who entered universities (Bayer, Royer, and Webb, 1973). Moreover, an even lower proportion chose these majors among freshmen who entered four-year colleges and universities in 1972 (5.7 percent and 5.4 percent, respectively) (Staff of the Office of Research, 1972).

Different patterns of distribution within the undergraduate major fields were observed for men and women in both cohorts. Women, in both cohorts, were less attracted than men to business, engineering, and physical sciences and mathematics. Instead, proportionately more women than men majored in arts and humanities, education, and health fields.

The health majors, particularly at the undergraduate level, comprised a rather mixed group (See Table 27). The category "health" includes persons who planned to obtain professional degrees (e.g., M.D., D.D.S.), as well as those who were training for allied health careers (e.g., nursing, health technology). Further, men and women in health fields tended to be distributed differently. Within undergraduate health fields, preprofessional majors accounted for 86.4 percent of the 1961 cohort men and 75.9 percent of the 1966 cohort men. About one-third of the men health field majors in both cohorts were in premedicine. The proportion of 1966 men health field majors in pharmacy (18.3 percent) was considerably lower than the 1961 figure of 31.9 percent, but the proportion in preveterinary studies grew from eight percent to 13 percent,. Women, on the other hand, were grouped in paraprofessional careeer fields. Over half of the women health majors in both cohorts majored in nursing, whereas just 12.5 percent of the 1961 group and even fewer (6.4 percent) of the 1966 group were preprofessional majors. Some of these cohort differences may result from the inclusion of two-year colleges in the 1966 cohort: Two-year college students are less likely than those in four-year colleges to major in preprofessional fields (Staff of the Office of Research, 1972).

Differences between black and white students in their choice of major were more pronounced in the 1961 cohort than in the 1966 cohort (Table 28). Particularly notable is the increased interest in business among black students (from five percent in the 1961 cohort to 19 percent in the 1966 group). The proportion of black students who selected health fields also increased substantially (from one percent to nine percent) although most of the gain occurred among black women. Thirteen percent of the black women chose this major compared to just three percent of black men. The trend away from physical sciences and mathematics was accentuated among black students, and fewer also selected arts and humanities majors. Of all the minority groups in

1966, Oriental students were the most interested in biological sciences, physical sciences and mathematics; and American Indians showed the least interest in these fields. In addition, a relatively large proportion of Orientals majored in engineering.

The fields of study students chose as undergraduates were related in similar ways to the educational attainment and degree aspirations of both cohorts (Tables 29, 30, and 31). Students in both cohorts who went on to graduate school were more likely than nonenrollees to have majored in liberal arts fields -- particularly the sciences -- and less likely to have majored in business. Graduate students were also slightly less likely to have majored in undergraduate health fields. In both cohorts, those who never entered graduate shcool, but planned to enroll in the future also tended to have majored in liberal arts, whereas many of those without graduate study plans had majored in business. Among the potential graduate study group, proportionately more bachelor's recipients than those without this degree had majored in social sciences, humanities or education. On the other hand, the potential graduate students who had not yet obtained the bachelor's degree tended more than the bachelor's recipients to have majored in undergraduate health fields (ten percent vs. four percent in the 1961 cohort; eight percent vs. four percent in the 1966 cohort).

Similar patterns for the two cohorts also appear with respect to college grade point average (Table 33 and 34). First, in both classes, the women outperformed the men by substantial margins. Twenty-one percent of the 1961 women and 22 percent of the 1966 women achieved average grades of B+ or better, compared to 12 percent and 13 percent respectively of the men; and few women reported average grades of C or less. Second, grade point average was related to the level of educational attainment, with bachelor's recipients reporting higher grades than non-bachelor's recipients, and master's degree holders reporting higher grades than graduate students who held no advanced degree. In the 1961 cohort, Ph.D. recipients obtained the highest undergraduate grades; 36 percent performed at the B+ level or better. Third, students with the best grades in both cohorts tended to select physical sciences and mathematics as their graduate major; among graduate students with this major, ten percent in the 1961 cohort and 12 percent in the 1966 cohort averaged A or A+ in college. Health fields also atrracted a relatively bright group.

Although 1966 freshmen as a whole did not receive higher grades than 1961 freshmen, the 1966 cohort graduate students did receive higher undergraduate grades than those in the earlier class. Of those who ever enrolled for advanced study, 21 percent of the 1961 cohort and 27 percent of the 1966 cohort received average grades of B+ or better. This finding does not appear to result from more selective graduate admissions policies since currently-enrolled 1961 freshmen also had performed less well in college than currently-enrolled 1966 freshmen (25 percent compared to 32 percent of the 1966 group reported B+ or better grades). Rather, the difference is probably due to the fact that 1966 freshmen who enrolled for advanced study comprised only persons who had progressed steadily through their first five years of higher education, whereas those in the earlier cohort included persons who may have progressed more slowly and encountered more difficulty in their undergraduate study.

Current Employment

By 1971, a majority of both cohorts were currently employed, and thus, the career patterns of the two classes were becoming established. However, the two cohorts were followed up at different stages in their career development; many 1961 freshmen had already been employed for several years, whereas the 1966 freshmen were at the starting point in their careers. The tables in this section describe the employment history and current employment status of both classes. The examination of current occupations and job activities is limited to persons who indicated in the first question on the form that they were currently employed either full-time or part-time.[6] The decision to limit the focus was based on our interest, particularly for the 1961 cohort, in obtaining information indicative of career directions, rather than previous or temporary work activities. Since the question relating to current activities was a single response item on the 1961 form and a multiple response item on the 1966 cohort form, the "currently-employed" group in the 1966 cohort probably includes persons whose work was a secondary activity. Moreover, the currently-employed group includes slightly more than half of the current graduate students in the 1966 cohort, but none of those in the 1961 cohort.

Table 35 serves as a reference for the numbers of persons in key analysis subgroups who indicated that they were currently employed. It should be noted that the percentages are based on the total cohort, and, therefore, for the 1961 freshmen, are lower than the percentages in Table 6 which are based on respondents to the question. (According to Table 6, 84 percent of the men and 56 percent of the women were working). In the case of the 1966 cohort, the figures are slightly lower than in Table 7 because some persons checked both full-time and part-time employment.

One of the more interesting patterns with respect to the labor force pool was discussed earlier in this report and is depicted graphically in Figure IV: This pattern depicts the different life directions taken by men and women in the 1961 cohort. Because the women completed their studies earlier than the men, they also entered the labor force earlier. Thus, in 1965 and 1966, the proportion of women who had entered the labor force and were working full-time was substantially greater than the proportion of 1961 cohort men. However, with the year 1968, the lines on the graph criss-cross, as women married and devoted themselves increasingly to home and child care, while men finished up their studies and military duties and pursued careers.

Although women started working earlier, by 1971 only 45 percent had been employed full-time for five years or more, as compared to 60 percent of the men (Table 36). Among blacks, on the other hand, the tentative findings based on small N's for men and women, indicate that the women had been employed full-time longer than the men. This greater career orientation among black women was observed for the 1966 cohort as well and was previously noted.

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[6] The series of questions was asked of those who were "currently or recently employed."

Not surprisingly, those who ever enrolled for advanced study had worked full-time for fewer years than persons who did not go on to graduate school. One-fourth of the Ph.D. or professional degree recipients said that they had worked full-time for more than three years. Considering that few received a professional degree prior to 1968 or a Ph.D. prior to 1969 (Table 23), a number of students must have completed their degree requirements while working full-time. The proportion that worked full-time for more than three years varies by field. Many of the Ph.D. or professional degree recipients in the "other" category were lawyers, who apparently began working full-time earlier than Ph.D. or professional degree holders in the sciences and health fields. Persons with Ph.D.'s in the physical sciences reported less years of full-time employment than did those in other fields.

The current occupations of these two college classes were grouped for these analyses into career categories which were either of primary interest to the National Institutes of Health (e.g., allied health, biological science), or which drew large proportions of students (e.g., business, teaching). (A list of occupations and their classifications appears in Appendix D). At the time of the followup, relatively large proportions of the currently-employed persons in both cohorts worked in business or teaching careers (Table 37). For the 1961 cohort, the 22 percent figure in business was the product of a gradual shift in career interests of this cohort over time; business was chosen as a future career by just 6.8 percent of this class in 1961 and 13 percent in 1965 (Astin and Panos, 1969). One might thus expect that among the 1966 cohort the 12 percent figure for business will probably grow in the future.

Among blacks, the proportion planning future business careers (15 percent, Table 68) was considerably higher than the proportion currently employed in business (eight percent, Table 38). Women were much less interested in business careers than were men. Instead, a relatively large proportion (about one-third) currently taught at the elementary or secondary level (Table 37). Somewhat larger proportions of women than men worked in allied health careers, especially among the 1966 cohort. These careers drew ten percent of the 1966 cohort women and seven percent of the 1961 cohort women.

The 1966 cohort had not yet produced its doctorates and professionals by 1971. In the 1961 cohort, on the other hand, Ph.D.'s, medical degrees (M.D., D.D.S., D.V.M.), and law degrees were each held by three percent of the cohort. Because many of those who held M.D. degrees were interns or residents and others were fulfilling military duties, the current civilian labor force contingent comprising the 1961 cohort included only one percent who were actively practicing physicians or dentists. Of the currently-employed members of this cohort, four percent were lawyers, six percent were engineers, six percent were other professionals (architects, clergymen, etc.) and four percent were college teachers. Thirty percent of the 1961 cohort and over one-half of the 1966 cohort marked careers such as secretary, clerical worker, farmer or rancher, computer programmer, technician, administrative or research assistant, conservationist or forester, which were classified as "other". In particular, 71 percent of the 1966 Orientals marked such occupations (Table 38), apparently including amny whose jobs entailed secretarial or clerical duties (Table 50).

Few of those who had never enrolled for advanced study were currently employed in fields of special interest to the National Institutes of Health (Tables 39 and 40). In both cohorts, business was the most frequent current occupation for those with no advanced study, particularly if they had no plans to enroll for advanced study in the future. However, large proportions (41 percent of the 1961 cohort and 57 percent of the 1966 cohort) were working in jobs that were classified as "other".

The current occupations indicated by persons who did enroll in graduate or professional school give a flavor of the employment picture both during and after years of study. Table 41 compares the occupations of 1966 cohort students who were currently enrolled in graduate school to persons in the 1961 cohort who were no longer enrolled. (These groups comprised the majority of the advanced study population in the two cohorts). In general, those in the 1966 cohort who combined both graduate study and employment were involved in teaching at the elementary or secondary level or in business. Almost none were scientists or professionals, and just four percent were teaching in college. However, 1966 cohort students in science fields were more likely than those in other fields to be teaching at the college level; 20 percent of the biological science majors and 18 percent of the physical science majors taught in colleges (Table 43). Since few in this cohort had already received an advanced degree, it is probable that these college-level jobs were teaching assistantships in conjunction with the graduate program.

In the 1961 cohort, about one-third of those who interrupted their advanced studies were currently teaching at the secondary level (Table 41). In addition to the high school teachers, 13 percent of those who interrupted their studies with no advanced degree were in elementary teaching, while 19 percent of the master's recipients were employed in a college setting. Master's recipients who did not aspire to higher degrees tended to teach in lower grades or to pursue business careers. The Ph.D. or professional degree recipients included lawyers (39 percent), doctors or dentists (14 percent), college professors (20 percent), and small proportions of scientists; compared to other groups, very few (five percent) had jobs classified in the "other" category. Again, it should be noted that a large proportion of the current M.D. recipients did not give their current status as "employed". Looking at the long-run career plans of this cohort (Table 72), we find that about equal proportions of the doctoral degree recipients planned to be physicians or dentists (28 percent) and lawyers (29 percent).

Consonant with their occupations, relatively large proportions of both cohorts were employed in private companies or educational settings (Table 44). However, the proportions of men employed in private companies (43 percent of the 1961 cohort and 47 percent of the 1966 cohort) were twice as large as those of women (21 percent and 25 percent respectively). More than one-third of the women in both cohorts were employed in elementary or secondary education. A difference in time frame is reflected in the fact that 11 percent of the total 1961 cohort and just five percent of the total 1966 cohort were self-employed or in professional partnerships. Some differences between the races also were observed: As shown in Table 45, relatively large proportions of blacks chose government settings (24 percent of the 1966 cohort) and relatively large proportions of Orientals were employed by colleges or universities (14 percent of the 1966 cohort).

The private sector was by far the most popular employment setting of students who never enrolled for advanced study (Table 46). Among the "never enrolled" group, half in the 1961 cohort and 42 percent in the 1966 cohort were employed in private companies. However, in both cohorts, large proportions of bachelor's recipients who planned future graduate study were employed in elementary schools. An interesting tendency existed among both cohorts for those who planned no advanced study to be self-employed. In fact, 19 percent of the 1961 freshmen who had neither a bachelor's degree nor advanced degree aspirations were self-employed.

Current employment settings varied considerably among persons who majored in different graduate fields of study. Moreover, doctorate and professional degree recipients (in the 1961 cohort only) displayed different employment patterns from others within their own fields (Tables 47 and 48). Overall, doctorates (Ph.D., M.D., etc.) clustered in higher education settings, private practice, or professional partnerships; whereas, advanced study enrollees as a whole (in both cohorts) were frequently employed not only in higher education, but also in elementary or secondary education and in private companies.

Colleges and universities drew greater proportions from the sciences than from other fields. Particularly large proportions of biological science majors chose these settings: 33 percent in the 1961 cohort -- including 78 percent of the doctorates -- and 40 percent in the 1966 cohort. Physical science and math majors, chose research organizations more often than other groups in the 1961 cohort -- including 24 percent of the doctorates.

Almost one-fourth of the health majors in both cohorts and 14 percent of the Ph.D. or professional degree holders in health fields were working in hospitals or clinics; 13 percent of the doctoral degree recipients were in medical group practice. However, the majority of professional degree recipients in health were self-employed or in a professional partnership (59 percent).

Respondents were asked to indicate the amount of time they devoted to certain work activities. Tables 49-52 present the proportions who said they devoted a "major amount"(40 percent or more) of their time to these activities. Sharp differences existed between the sexes (Table 49). Men in both cohorts tended to be involved more than women in management, sales, and operations. Twenty-one percent of the 1961 cohort men and 28 percent of the 1966 cohort men spent a major amount of their time in operations -- compared to just eight percent of the women in both cohorts. Women were more likely to report major involvement with teaching (about 40 percent of both cohorts) or clerical-secretarial duties. In fact, a full one-fourth of the 1966 freshman women -- compared to just five percent of the men -- spent a major part of their time in 1971 in clerical or secretarial work.[7]

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[7] The proportion of 1966 freshman women employed as secretaries is too large to be attributed wholly to the inclusion of two-year colleges in the sample. Subsequent analyses have indicated that only nine percent of the fully employed women graduates in this cohort were secretaries (Bisconti, 1974); thus, many of those engaged in secretarial jobs may have been employed part-time, either following graduation or while in pursuit of the bachelor's degree.

It is surprising to find that over one-fourth of the Orientals, the group tuned to the sciences, were currently performing secretarial work (Table 50); however, 89 percent of the Orientals who planned such activities were women. The greatest similarity between the sexes with respect to work activities is observed in the areas of research, consulting, and the often-cited "service to patients or clients."

Persons who enrolled for advanced study in biological sciences were involved in similar types of activities to those reported by physical science and math majors: A large majority were either teaching or doing research (Table 51). However, more doctorates in biological sciences were teaching (66 percent vs. 44 percent of the physical science and math doctorates) (Table 52). Advanced study enrollees in the health fields were engaged primarily in service to patients or clients. Eighty-four percent in the earlier class, including 96 percent of the physicians or dentists devoted a major amount of time to this activity. Social scientists and persons with "other" graduate majors reported the greatest variety of work activities: Sizable proportions indicated teaching, service to patients or clients, administrative duties, and research as their major activity. However, among Ph.D. or professional degree recipients, 59 percent of the social scientists were teaching and 55 percent of those in "other" fields were serving patients or clients.

Research and development activities were conducted more frequently by doctorates than by others with graduate study experience. Among the doctorates, 55 percent in biological sciences, 60 percent in physical sciences and math, and 37 percent in social science devoted a major amount of time to research. Proportionately few of the doctorates or nondoctorates in health or "other" fields were deeply involved in research. However, because the pool of graduate students in "other" fields was very large, they produced the largest actual number of researchers; 14,891 of this group conducted research during a major portion of their workday, and an additional 37,606 spent a lesser amount of time in research or development (Table 53).

On the whole, the 1961 cohort, as expected, were more settled into their occupations and expressed more satisfaction with their work than the more recent class (Table 54). Compared to 1966 freshmen, more of the 1961 class were in supervisory positions (43 percent vs. 32 percent), more wanted to remain on the job longer (69 percent vs. 49 percent), and more considered the job a good one (81 percent vs. 67 percent). In addition, 76 percent of the 1961 cohort, compared to just 57 percent of the 1966 cohort, thought their present job "fit in with (their) own long-range goals". The younger class were more likely to feel that they were underpaid; 36 percent (vs. 23 percent of the 1961 freshmen) said they were working for a "salary considerably lower than (their) own qualifications would deserve". One-third of this class compared to 15 percent of the 1961 cohort viewed their present job as temporary. At a time when the job market was notably tight, 27 percent of the 1966 freshmen experienced difficulties in finding a job. Fewer 1961 freshmen (16 percent) reported a difficult job search, since the majority had started working when jobs were more plentiful.

As many women as men considered their jobs "a good job" and thought they fit their long-range goals. However, only 39 percent of the 1961 cohort women and 32 percent of the 1966 cohort women thought their jobs offered "good chances for advancement", a feature cited by 66 percent and 50 percent respectively of the 1961 and 1966 cohort men. These findings suggest that women are less optimistic than men about their chances for occupational advancement.

Racial minorities were less satisfied than whites with their current jobs (Table 55), In particular, relatively many blacks and American Indians (about one-fourth) felt discriminated against with respect to advancement and job conditions. However, minorities in the 1966 cohort were as optimistic as whites regarding their chances for advancement in their present jobs. All the minorities in 1966 were less likely than the whites to hold a job which fit their long-range goals.

Among the 1961 freshmen who ever enrolled for advanced study, health field majors apparently found the most compatible jobs (Table 56). Persons in this group were most likely to be working in a field for which they were trained, with a job that fit their long-range goals. They were the least likely to have encountered either a difficult job search or discrimination on the job, and few complained about their pay.

Biological scientists, on the other hand, reported fewer chances for advancement than other groups, and 48 percent thought they were working at a salary considerably lower than their qualifications would deserve. Biological, physical, and social scientists had a relatively difficult time finding jobs, and they were less likely than other groups to want to remain on their present job.

Ph.D. recipients in general had a slightly more difficult job search than others who ever attended graduate school (Table 51). This difficulty was reported by particularly high proportions of the biological science doctorates and physical science or math doctorates (48 percent of both). However, Ph.D. recipients, once they located a position, were more likely than other groups to be working in a field for which they were trained, and in a job that fit their long-range goals. Biological scientists with a Ph.D. still were more likely than other groups to feel underpaid (41 percent), but they were, at least, better off than biological science majors without the doctorate, few of whom found jobs with good chances for advancement.

A different picture emerges from an examination of the job characteristics of persons in the 1966 cohort who ever enrolled for advanced study. Slightly more than half (56 percent) currently combined their work with graduate study (Table 35). Therefore, for many, the current job was either part-time or temporary. Thus, less in any group, relative to the 1961 cohort, thought their job offered good chances for advancement or wanted to remain on the job longer (Table 58).

Considering the differences between the cohorts in job experience and in the job characteristics of those who were currently employed, it is no surprise to find that the 1961 freshmen as a whole expected to be earning higher salaries in 1972 than the 1966 freshmen (Tables 59 and 60).[8] Forty-nine percent of the earlier class and only about 13 percent of the recent class expected earnings of $10,000 or more. Among the 1961 cohort, men were expecting to earn considerably more than women, during the coming year. Only 13 percent of the women compared to 47 percent of the men estimated their 1972 earnings at $12,000 or more. One-third of the women did not expect a salary at all, and of the remainder, the majority had expected earnings of under $10,000. In fact, over one-fifth of the women estimated their annual salary for 1972 at below $7,000. Blacks, the majority of whom were women in the 1961 cohort, also expected relatively low salaries.

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[8] All who answered the question are included in these tables regardless of whether or not they were currently employed.

Educational attainment appears to be reflected in differential earnings. Among those who never enrolled for advanced study, bachelor's recipients earned more than those without this degree. Particularly high levels were reported by those bachelor's recipients who planned no further study; probably, many had found high salaried positions in business. Among persons who entered graduate school, those who had completed their studies expected higher earnings than those who planned to re-enroll. Doctorates were awarded the highest salaries of any group, although differences existed within the fields. Doctorates in health and "other" fields (including law) expected the highest salaries, and those in biological sciences expected the lowest.

Current Unemployment

A phenomenon of recent concern is the existence of unemployment among our most highly educated human resources. The plight of the college graduate or Ph.D. recipient, confronted with an increasingly forbidding job market, has caught public attention through the news media. Indeed, among those who were currently employed, 16 percent in the 1961 cohort and 27 percent in the 1966 cohort had a difficult job search (see the last section on Current Employment). This section reviews the experiences and plans of those who were unemployed at the time of the followup.

According to the Bureau of Labor Statistics, the unemployment figure for the nation as a whole at the time of the 1971 followup was between 5.6 and 5.9 percent (Green and Stinson, 1973). Only 1.4 percent of the 1961 cohort checked as their single primary activity that they were unemployed and looking for work. (Table 61). However, six percent of the 1966 cohort (the same proportion as for the nation as a whole) stated that they were unemployed and looking for work. In addition, 0.8 percent of the 1961 cohort and 4.3 percent of the 1966 cohort checked the response "unemployed and not looking". A relatively large proportion of those in the job market were men, whereas the majority of those not seeking employment were women. Among the 1961 freshmen, slightly more blacks than whites sought jobs; and, among the 1966 freshmen, the highest unemployment rates were found among the American Indians, 14 percent of whom sought jobs.

In both cohorts, persons with some graduate study experience were less likely to be unemployed than others. However, in the case of 1966 freshmen who enrolled for advanced study, the lower unemployment rate was probably due to the fact that so many of the advanced study group were currently enrolled in graduate or professional school. Furthermore, among 1966 freshmen who never enrolled for advanced study, bachelor's recipients were more likely to be seeking jobs than others, probably because many of the nonbachelor's recipients were still undergraduate students.

Among those 1961 freshmen who ever enrolled in graduate school, most of whom were presumably in the labor force or job market, biological scientists were more likely than others to be unemployed: 3.6 percent sought jobs, as compared to just 0.9 percent of those in health fields. It will be recalled that relatively many of the employed biological scientists also encountered difficulty in finding their current jobs.

A series of questions on the followup questionnaires addressed persons in the two cohorts who were "neither working nor full-time students". As seen in Table 63, those who answered the questions included many who did not consider themselves "unemployed". In fact, only 20 percent of those in the 1961 cohort who responded to the items and only 48 percent of the 1966 group said that they wanted work. Nevertheless, the table does suggest some of the reasons that a rather large number of persons (134,998 in the 1961 cohort and 170,780 in the 1966 cohort) were not currently applying their acquired knowledge in either further studies or careers.

Women comprised a large majority of those who were neither studying nor working -- especially in the 1961 cohort. Many women (89 percnet of the 1961 group and 60 percent of the 1966 group) were involved with home or child care.[9] More women than men did not want to work and more in the 1961 cohort preferred volunteer activities.

Men without jobs were more likely than women without jobs to indicate obstacles such as health problems, company cutbacks, or lack of suitable offers. However, over one-fourth of both cohort men in this unemployed group did not work because of extended studying or research, and about one in ten were traveling or vacationing.

Table 64 focuses on indicators of nonvoluntary unemployment; that is, unemployment resulting from factors in the job market. Shown are the numbers in various subgroups who left their jobs due to a company cutback or who could not find jobs appropriate to their qualifications. The numbers are percentaged on the basis of the total subgroup (rather than respondents to the question as in Table 63). Only very small proportions of these college classes reported either of the two serious unemployment problems. Just 0.6 percent of all 1961 freshmen and just 1.1 percent of the 1966 freshmen were unemployed due to a company cutback. Only slightly higher proportions of the two cohorts were undable to find a job that suited their qualifications.

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[9] Among the 1961 cohort women, the number who gave home or child care as a reason for not working (106,506) was greater than the number whose single primary activity was "housewife" (90,101); probably, the larger figure includes some who marked on Question 1 that they were part-time students or "unemployed and not looking", in addition to some who did not give a current activity. Among the 1966 cohort women, on the other hand, those who gave housewife as one of their activities (215,118) considerably outnumbered those who were not working for this reason (67,359). This finding provides further evidence that many of those who checked more than one activity were housewives.

Considerable attention has been paid by the media to the "glut" of Ph.D.'s on the job market. Although it is certainly true that many had a difficult job search or found their jobs less than satisfactory, only 0.3 percent were out of work due to a company cutback and only 0.6 percent as a result of inability to find a suitable position.

Career Aspirations

For the third time since they entered college, the 1961 and 1966 freshmen were asked about their career plans and goals. The tables in this section present the plans and goals they indicated in 1971. The data provide a measure of the future labor force pool for different occupations and employment settings. In addition, they suggest the job features and activities which appeal to these two cohorts.

The long-run career choices of the two college classes were similar in most respects (Table 65). In both cohorts, business was the most popular choice of men and teaching was the most popular choice of women. The proportion of men who aspired to careers in business was greater among the 1961 cohort than among the younger class. However, the proportions may equalize over time if 1966 freshmen follow the pattern of the earlier cohort, many of whom shifted into business at a later point in their careers (see page 95).

Science and professional careers were selected by relatively small proportions of both cohorts. Just four percent of the 1961 cohort and three percent of the 1966 cohort planned to be scientists. In the 1961 cohort, four percent of the men planned careers as physicians or dentists, compared to one percent of the women; and six percent planned to be lawyers compared to two percent of the women. Similar differences between the sexes in the selection of professional careers existed among the 1966 cohort as well. Women in both cohorts were more likely than men to select allied health careers (see Tables 66 and 67 for the number of men and women in the health field pool).

A comparison of these career choices with the current jobs of the two cohorts, as discussed in the previous section on Current Employment (Table 37), suggests that the 1961 freshmen were more likely than those of 1966 to be currently employed in their career occupations. Few differences are observed between the current and long-run careers of the 1961 cohort. However, many 1966 freshmen planned to shift out of the variety of miscellaneous occupations classified as "other" and into the more dominant careers. One explanation for this shift is that a large proportion of the miscellaneous jobs in which the 1966 cohort were engaged served a temporary or part-time means of support, combined with academic pursuits. Another explanation is that the career decisions of youths do tend to shift over time in the direction of the dominant peer choices. (Holland, 1966; Astin and Panos, 1969; Astin and Myint, 1971; Astin and Bisconti, 1973). A third explanation is that the 1966 cohort, by 1971, had not yet completed their academic training in such fields as medicine and law.

During the ten years between college entry and the 1971 followup, some shifts occurred in the career plans of the 1961 class. (See Astin and Panos, 1969, for a full account of the freshman and senior year aspirations of this cohort). A decrease occurred in the proportions of the total cohort who planned certain careers demanding rigorous academic training. The pool of future physicians or dentists declined from six percent in 1961 to three percent in 1965 and 1971. Allied health careers also lost potential recruits (from six percent in 1961 to four percent in 1965 and 1971). The proportion of this cohort who planned to be engineers dropped from eight percent in 1961 to five percent in 1965 and four percent in 1971. The primary beneficiary of these shifts was business, which gained substantially over time: The proportions who planned to be businessmen grew from seven percent in 1961 to 13 percent in 1965 and 22 percent in 1971.

Few differences existed between the races with respect to their long-run career goals (Table 68). Business and teaching were popular with all groups. Black students in the 1961 cohort selected teaching careers more often than did their white classmates, and those in the 1966 cohort tended to select allied health careers more often. Although a relatively large proportion of the 1961 blacks planned to be physical scientists (six percent, as compared to two percent of the whites), only one percent of the 1966 blacks chose this career. Moreover, fewer blacks in the recent cohort planned to be physicians or dentists (one percent). These medical professions were especially popular with the Orientals, nine percent of whom planned to be doctors or dentists. (See Table 21 for the numbers of persons with different racial backgrounds who comprised the 1966 cohort health pool).

Persons in both cohorts who had never enrolled for advanced study often chose business or teaching careers (Table 70 and 71). However, among this group, holding a bachelor's degree with no plans for further study appears to be associated more with the choice of business. However, having a bachelor's and planning graduate study appears to be associated with the choice of teaching.

The level of educational attainment and aspirations bore a relationship to the long-run career choices of 1961 cohort graduate students (Table 72). Professional and scientific careers were selected by few of those who held no advanced degree. A relatively large proportion of the dropout group planned allied health careers (eight percent compared to three percent of all graduate study enrollees). Master's recipients who planned to obtain higher degrees differed in their goals from master's recipients with no further degree plans. The former tended to plan teaching careers in higher education, whereas the latter were more likely to focus on the elementary or secondary school level. The desire to move up to the college level or to advance within higher education appears to be a factor in the decision of these master's recipients to obtain higher degrees; of the 36 percent who planned long-run careers in college teaching, only about half currently taught there (Table 41). In addition, small proportions of those who interrupted their studies with a master's degree aspired to scientific careers in future years; eight percent cited "scientist" as a long-run choice compared to four percent who were *currently* scientists.

The biological sciences in general produced proportionately more career scientists than either the physical or social sciences (Tables 73 and 74). However, the proportion of scientists produced by all three of these fields appears to be growing somewhat. Comparing the proportion of career scientists to emerge from the three graduate fields of study, we find slightly smaller figures for the 1961 cohort than for the 1966 cohort: biological sciences, 40 percents vs. 43 percent; physical sciences and mathematics, 30 percent vs. 35 percent; social sciences, 19 percent vs. 25 percent.

The overall similarity between the cohorts with respect to career occupations was reiterated in the employment settings they chose (Table 75). The majority of both cohorts cited educational settings, private companies, or self-employment. The 1961 and 1966 cohort figures for each of these settings were respectively: educational settings, 30 percent and 26 percent; private companies, 19 percent and 16 percent; and self-employment, 17 percent and 15 percent. The sexes differed in expected directions for both cohorts, with proportionately more women selecting elementary education and proportionately more men selecting private companies or self-employment. Because more of the 1966 freshmen had not yet decided upon their career employer, the proportions of this cohort who were distributed within the various choices generally fell slightly short of 1961 cohort figures. However, the proportions who planned to work in health settings were slightly higher for the recent class (seven percent vs. four percent). This trend appears to result primarily from the increased proportions of women in allied health fields.

A comparison of the long-run employment choices of the toal cohorts to the current settings of those who were working at the time of the followup, suggests some potential shifts among men students (Tables 45 and 75). Private companies were more popular as a current setting than as a long-run setting. On the other hand, self-employment or professional partnerships were more often cited as long-run settings. This shift may result in part from the introduction into the respondent base for long-run employment settings of persons in professional fields who had not yet completed their advanced study. It does appear, however, that a number of those who found initial security in private companies aspired to more independent and self-actualizing settings in the future. This interpretation is supported by the fact that the same shift occurred among students in both cohorts who never enrolled for advanced study (Table 46 and 76).

Among the 1961 freshmen who ever enrolled for advanced study, the long-run employment settings varied considerably according to the level of educational attainment and aspirations (Table 77). As to be expected, they reflected the occupations selected by the different advanced study index subgroups (Table 72). Relatively many of those who did not plan to go beyond the master's level or who interrupted their studies with no advanced degree selected elementary or secondary education. Advanced study dropouts tended more than other groups to plan careers in the private sector, either with private companies or in self-employment. Holders of master's degrees who planned to obtain a higher degree grouped their choices predominantly in higher education. Since over half of the Ph.D. or professional degree recipients were doctors or lawyers, it is not surprising to find that 40 percent of this group planned to be self-employed or in a professional partnership.

However, within the health fields, relatively fewer of the 1966 cohort planned to pursue careers within professional partnerships (Table 78). Of those who ever enrolled for advanced study in health fields, only 29 percent of the 1966 cohort, as compared to 41 percent of the 1961 cohort, planned to be self-employed or in a partnership. The trend away from this setting was accompanied by an increase in the proportions who planned long-run employment in hospitals, clinics, and medical group practices. The proportion who selected hospitals or clinces grew from 11 percent of the health majors in the 1961 cohort to 19 percent in the 1966 cohort, and the corresponding proportions for medical group practices were 21 percent and 29 percent.

As was previously noted, science fields produced more career scientists in the 1966 cohort than in the earlier class. This trend is reflected in the increased pool of biological and physical science majors who planned to work in research organizations. Among the biological science majors, research organizations were the choice of 16 percent in the 1966 cohort, as compared to 11 percent in the 1961 cohort.

Although the cohorts, on the whole, chose similar careers and employment settings, they had somewhat different views of the kinds of activities they would perform (Table 79). Fewer 1966 men planned to devote major attention to administrative duties (38 percent vs. 46 percent of the 1961 cohort). Instead, more of this cohort planned a major amount of involvement in research (from 13 percent to 19 percent of the men; from nine percent to 14 percent of the women), as well as in other activities including services to patients or clients, consulting, and writing. The findings suggest a divergence from the more instrumental orientation of the earlier college class and a greater affinity for investigative and creative endeavors. Interestingly, it was noted in a previous comparison of the life goals of college freshmen that those who matriculated in 1970 expressed even less instrumental values than the 1966 class at the time of college entry (Astin and Bisconti, 1972).

Among persons who enrolled for advanced study, these differences between the cohorts with respect to career activities extended to all fields, with the exception of health (Table 80). The proportion who planned to devote a major amount of time to research grew from 45 percent of the 1961 biological science majors to 52 percent of those in the 1966 cohort. Comparable increased outputs of researchers occurred in physical sciences (from 34 to 45 percent), social sciences (from 25 to 30 percent), and "other" fields (from 12 to 17 percent). Moreover, compared to the 1961 cohort, fewer social science and "other" majors in the 1966 class stated that they planned no research activities at all (Table 81).

Table 82 compares the two cohorts of women regarding the activities or combination of activities they expected and preferred. The 1966 cohort woman displayed greater commitment than the 1961 cohort to early career development. One-third of the 1966 women, compared to one-fourth of the 1961 women, indicated that they preferred to combine housewife activities with regular employment. Moreover, they expected to combine activities in this fashion. The earlier women students, on the other hand, were more likely to prefer and plan to devote their time to the housewife role for a few years and to join the labor force later on. Relatively few of either cohort wanted or expected to be involved exclusively with employment or housewife activities.

For both cohorts, educational attainment and aspirations exerted a direct influence on the preferences and expectations of women. In Table 83, four groups of women are compared: 1) those who never enrolled for advanced study and did not plan to enroll in the future, 2) those who never enrolled for advanced study but *did* plan to enroll in the future, 3) the total of all who ever enrolled for advanced study, and 4) Ph.D. recipients. Moving, among the 1961 cohort, from the lowest level of educational attainment and aspirations to the highest, one sees that the proportions of those who preferred to combine housewife with regular employment increased steadily -- from 11 to 23 to 34 to 62 percent. The proportions preferring to be only housewives decreased from 26 to 12 to nine to three percent. A similar relationship existed between level of education and the employment preferences of the 1966 cohort women, as well.

As seen in Table 84, half of the women in the 1961 cohort indicated that their husbands influenced their choice of career more than any other person. Although in the 1961 cohort fewer men than women were married, over one-third of the men also indicated that their spouses had been more influential in their choice of career than friends, parents, college personnel or others.

Women, on the whole, approached employment from a different perspective than the men. Factors which they felt would influence their choice of a long-run career are shown in Table 85. For both sexes, in both cohorts, large proportions cited, as important considerations, to be able to work with people, to be able to work with ideas, to be helpful to others, and to have a chance for originality. However, the men tended to attribute greater importance than did women to facilitators of career advancement, leadership, and high earnings; women attributed greater importance than did men to helping others and making an important contribution to society.

The job considerations of men and women were more alike than those of persons who enrolled for advanced study in different fields (Tables 86, 87, and 88). Health field majors expressed particularly distinct views, but differences existed between persons in other fields as well. Since the two cohorts gave quite similar responses to the question, the findings suggest some inherent differences between the values of persons who are drawn to various fields.

Biological sciences. Important factors cited by this group suggest the stereotype of the dedicated scientist. More than any others, they attributed importance to having an intrinsic interest in their field; in fact, 90 percent of the Ph.D.'s cited this factor. The possibilities of rapid advancement, leadership, high anticipated earnings, prestige, or working with people were considered relatively unimportant.

Physical sciences and mathematics. The physical science and math majors placed high value on intellectual pursuits; more than the other groups, they sought a chance for originality and for working with ideas. They placed somewhat less value than others on autonomy and on making an important contribution to society.

Health fields. More than any others, health field majors attributed importance to job security, high earnings, job prestige, autonomy, making an important contribution to society, being helpful to others, and working with people. They were less concerned with career advancement, chance for steady progress, and chance for originality.

Social sciences. Social scientists were more likely to resemble the majority of those with advanced study, who are classified, for the present analyses, as "other". Compared to those who majored in "other" fields, more of the social science majors cited autonomy and an intrinsic interest in their field; and fewer cited leadership opportunities and being able to work with people.

The 1961 cohort respondents were asked to rate a variety of life objectives. The proportions who rated each of these objectives "essential" or "very important" are presented in Table 89. The findings provide us with some insights about the ideologies of these men and women, as well as about factors influencing their career goals. For both men and women, the most often-cited goals reflect a desire for self-fulfullment outside of the occupational sector; relatively large proportions attributed great importance to raising a family and engaging in hobbies and leisure-time activities (78 and 64 percent, respectively). As was the case with other college classes as freshmen (Astin and Bisconti, 1972), relatively few cited creative endeavors or theoretical contributions to science.

Ratings of other life objectives suggest some of the factors underlying the divergent career development patterns of the sexes. Substanitally more men than women attributed importance to "being very well off financially", "being successful in a business of my own", and "obtaining recognition from colleagues".

Graduate Enrollment Patterns

Beginning with this section, the focus of the report narrows to a consideration of the academic record of those respondents who went on for advanced study after completing their baccalaureate work. For the 1961 cohort, a total of 366,359 (or 51.9 percent of the entire cohort) had enrolled for advanced study by the time of the survey; for the more recent 1966 cohort, 404,148 (or 21.9 percent of the cohort) had enrolled for advanced study (Table 94). This section describes the academic progress and patterns of enrollment shown by members of the 1961 and 1966 cohorts, as well as the distribution of students by graduate fields of study. The following sections will assess patterns of degree completion more closely, will document the range of experiences and problems that were reported, and will indicate current and recent financial arrangements that students have made to support their advanced studies.

As can be seen from Table 90, only a minority of students in either cohort expressed no desire for advanced study. Indeed, among the 1961 freshmen, by 1971 more than half had completed some advanced study, mainly of one or two years duration. Women much more often than men were found among the groups who had no plans for further education or who had not yet enrolled for further study but hoped to do so eventually; in line with this pattern, it is also evident that women much less often than men reported having had three or more years of advanced study (nine percent vs. 22 percent).

Among the 1966 freshmen, 72 percent intended to pursue graduate study, but only 29 percent had completed some amount of formal graduate work by 1971. Notably, there was little difference in the proportion of men and women among the 1966 group who enrolled for advanced study. Whereas, there was a difference in the 1961 cohort in the proportions of men and women who enrolled four years after college entry, both sexes in the 1966 cohort enrolled in similar proportions four and five years after college entry.

Among black students in the two cohorts, the proportion that had completed some advanced study (54 percent in the 1961 cohort and 30 percent in the 1966 cohort) is similar to the proportion for all students. Furthermore, most of both black and white students had completed one or two years of advanced study. What is distinctive among black students, however, is a much greater desire for graduate work among those who had not yet enrolled; in both the 1961 and the 1966 cohorts, much larger proportions of black students than students in general reported that, although they had not yet completed any graduate work, they did plan to enroll in the future.

In terms of their actual or planned field of study, respondents generally expersssed interest in a range of fields (see Table 91). There was a great deal of similarity between the two cohorts in their choices, with education, business, and the humanities ranking as the most popular choices, while fewer than ten percent chose either physical science, biological science, or health fields. Among both cohorts, large proportions of women majored in education and the humanities, and few chose fields preferred by men such as law, engineering, and business. For both cohorts, there were only small differences in the proportion of men and women choosing the various science or health fields.

However, as can be seen from Table 92, marked sex differentials appear in terms of more specific programs of study. Within health fields, the majority of men (56 percent) were in medicine, and almost another quarter (24 percent and 20 percent, in the 1961 and 1966 cohorts, respectively) were in dentistry. In contrast, women in health fields made vastly different choces: Nursing was the most popular choice, followed by physical therapy, and these fields alone accounted for 58 and 73 percent (in the 1961 and 1966 cohorts, respectively) of all health field choices made by women. Only a minority of women in health fields (26 percent of the 1961 health majors and 12 percent of those in the 1966 cohort) reported that they were in medicine. Moreover, our data indicate that, whereas among the 1961 cohort approximately one in five of those taking advanced training in medicine were women. These figures should not be taken as indicative of a trend in first-year medical school enrollments. In fact, enrollment figures available from the Minority Affairs Office of the American Association of Medical Colleges show a trend in the last few years for women to comprise a larger proportion of first-year medical classes. Our figures are based on the total number of persons within a particular cohort who began medical training in any year since 1965.

As can be seen from Table 93, black respondents made slightly different choices of major fields, as compared to students in general. There was a larger proportion with majors in education and "other" fields, while comparatively few chose such fields as law or engineering. Blacks in both cohorts were less likely than respondents overall to cite a major in the biological sciences or in health fields, although it can be noted that interest in health fields was considerably higher among blacks in the 1966 cohort.

The previous tables were based on graduate plans of those who intended to enroll, as well as those who actually had some graduate study. Table 94 and the following tables are limited to only those students who, according to our definition (see Introduction), did enroll for graduate study at some time. Almost all of these students were white -- despite an increase in the proportion of black students among the 1966 cohort (Table 94). About three out of five of these students were men although this proportion was also smaller among the 1966 cohort.

In terms of broad field distribution, the two cohorts were generally similar in having only small proportions enrolling in science or health fields; again, it is notable that interest in the health fields increased slightly with the 1966 cohort relative to the choices of the 1961 freshmen.

In the 1961 cohort, race, sex, and field of study operated as important sources of differentiation in terms of one's progress in advanced study. As can be seen (Tables 95 and 96 women, blacks, and those in social science or other (nonscience) fields more often reported that they had not yet earned any graduate degree, and less often indicated completion of a Ph.D. or professional degree. At least half of both the men and women (Table 96) had terminated their studies; seven percent were still enrolled. However, 41 percent still held hopes of getting further graduate training, even though not presently enrolled; this was more often the case with students in social science fields and in other (nonscience) fields.

The status of the 1966 cohort was quite different, however, due of course to the different time frame, i.e., only five years after college matriculation (Table 97). A majority of those with any graduate experience were still enrolled as of late 1971, overwhelmingly so in biological sciences and health fields. Very few of these people had completed any degrees (at best, ten percent of those in "other" fields, which includes education, had earned a master's degree). Overall, some 20 percent of students had already interrupted their studies without getting a degree, a circumstance much less often reported by students in biological science or health fields than by students in other major fields.

In both cohorts, about one-fifth of those who reported any graduate study did not indicate a graduate major. Many of these respondents apparently had undertaken some graduate work, but had left without earning any advanced degree. Notably, the group makes up the large majority of the last category of the advanced study index: those who completed their studies but did not hold an advanced degree.

Among those who did indicate a graduate major, Table 98 shows the distribution of specific field choices within each broad category. Clustering on particular choices is quite evident and should be kept in mind whenever the broad field categories are discussed. For instance, among those indicating "health fields", about half had enrolled in medical schools and almost one-fifth in dental schools. Similarly, about half of the enrollment in the social sciences is accounted for by study in psychology. Greater variation existed within other fields. In biological sciences, for instance, general biology and zoology were popular, while basic medical sciences also were frequent choices, indicated by one-third of the 1961 cohort members and by one-fourth of the 1966 cohort members.

The undergraduate majors of students in both cohorts were generally congruent with their graduate field choices (see Tables 99 and 100). The greatest amount of continuity is observed in physical sciences and mathematics and in the biological sciences. In health fields, about a third (28 percent) of the students had majored in biological sciences for their undergraduate work, and another third had been in health-related training.

The data in Tables 101, 102, and 103 indicate certain basic trends with respect to patterns of entry into advanced study. The modal pattern for both cohorts was one in which students entered graduate training the same year they finished their baccalaureate training. Yet, it is also evident that a good number delayed their entry beyond the conventional time, typically for one year, but often for several years after baccalaureate completion (Table 101). Indeed, a relatively small but steady stream of 1961 cohort members entered advanced study in each succeeding year after 1965: 21 percent in 1966, 11 percent in 1967, nine percent in 1968 and so on, even to the five percent who entered as late as 1971.

Important variations on this pattern appear within the different fields of study, however. Members of the 1961 cohort who were in health fields and in physical sciences and mathematics were much more likely to enter their postbaccalaureate training in the modal year of 1965 (Table 101); in fact, as many as 83 percent of those who ever enrolled in the health fields had entered their advanced training by 1966. In the other science fields, the pattern is not as strong, but does show a greater than average concentration of enrollment in the first few years after baccalaureate completion.

Students at varying stages of academic progress showed a number of distinctive patterns with regard to their year of first enrollment for advanced training (Table 103). As might be expected, those members of the 1961 cohort who had earned a Ph.D. or professional degree began their studies in 1965 and certainly no later than 1966. It can also be noted, however, that the majority of those who had earned a master's degree (70 percent of those with no further degree plans and 64 percent of those who hoped to return for further study) also began graduate study no later than 1966. However, currently enrolled students in the 1961 cohort tended to enter graduate or professional school relatively late; 30 percent of these students began their advanced study in 1970 or 1971. Yet, a sizable proportion of currently enrolled students began their work as far back as 1965 (26 percent) or 1966 (18 percent); it is likely that many of these early entrants in the currently enrolled group were at advanced stages of their training by late 1971, but some may have interrupted their studies for a time and then returned.

There is a major difference in terms of first enrollment for the two groups of students in the 1961 cohort who had some graduate experience but had not yet earned an advanced degree: Most of those with no further study plans (71 percent) had entered graduate study no later than 1967 whereas, among those who still intended to go back to get an advanced degree, less than half had begun their work by 1967.

Tables 104 and 105 present other data on temporal patterns in graduate enrollment, in this case taking the total number enrolled for advanced study in each year, regardless of their level of progress. Two points of caution should be made concerning these data, however: First, the numbers represent those who indicated graduate enrollment as their primary activity in each year, thus undoubtedly resulting in much understatement of part-time study; in addition, in creating the advanced study index a number of subjects were dropped because they did not meet all criteria in the definition of this index. As a result, these figures should be taken as merely indicative of broad trends in enrollment.

As can be seen, the general pattern was clearly one in which most full-time graduate enrollment was concentrated in the three years between 1965 and 1967, with a substantial decrease by 1968 (see Table 104). Students in the "hard" sciences showed a more drawn-out pattern (Table 105), with a definite drop in enrollment only after 1968 for physical sciences and mathematics and, for biological sciences, with a rather even pattern extending through 1970. Enrollment in medicine and dentistry showed the sharpest delineation, as most students finished their training after four years and then went into internships. Relatively small numbers of students were enrolled for master's or doctoral work in health fields.

Most of the enrollment for master's degree study -- occurring mainly in social sciences and nonscience fields, less often in physical sciences and mathematics, and rarely in biological sciences or health fields -- took place during 1965 and 1966, although a good number were enrolled as recently as 1969 or 1970. The pattern for part-time study is not reliable (because the data are based on one's "primary" activity) but nevertheless suggest a rather drawn-out pattern of enrollment; the largest amount of part-time graduate enrollment occurred during 1968 and 1969.

Study Progress: Students Who Completed Their Advanced Training

Perhaps one of the most problematic issues in graduate education is that of degree completion, especially on the Ph.D. level. (See Harvey, 1972, Chapter 2, for a detailed discussion of the issue). One difficulty is that a large number of students seem to never complete their studies; however, another problem, so well analyzed by Alexander Heard (1963), is that, even among those who do attain their degree, often an inordinate amount of time has been devoted to the effort. Some students undoubtedly interrupt their Ph.D. training, one factor which contributes to the time delay (Wilson, 1965), but it is also true that most students still spend much more than the three or four years officially described in college catalogs as the needed period of study.

From the data shown in Tables 106 and 107, it is evident that the experience of the 1961 cohort follows the same patterns as described for other graduate students. Although 24 percent of those who ever enrolled in graduate study plan to earn a Ph.D. degree at some time (Table 107), only five percent had done so by late 1971 (Table 106), approximately six years after baccalaureate completion. Sharp contrast is presented for those who have taken advanced training for M.D., D.D.S., or law degrees; in each of these degree categories, the percentage who have earned the degree by 1971 was only a little lower than the percentage who ever intend to earn the degree.

The pattern is the same in terms of numbers of students in each degree category: If degree aspirations were to be finally realized, the pool of Ph.D. recipients from this cohort would rise dramatically (Table 106). Notably, too, if aspirations were realized for other degree goals, a good many more lawyers and physicians would be produced. In light of much research showing a lapse of eight or more years time between baccalaureate completion and doctorate completion, more students will probably complete their doctoral work within the next few years; however, it is doubtful that all of those who still maintain these aspirations for doctoral degrees will reach their goal.

The broader picture of degree enrollment and progress for the 1961 cohort shows that, of all those who ever enrolled for advanced study, more than half (54 percent) did earn a graduate degree by 1971 (Table 106): In most cases, a master's degree was the highest degree attained, as only small proportions had earned a Ph.D. (five percent), or any professional degree (six percent in law, three percent in medicine, and two percent in dentistry or veterinary medicine).

Students in different fields of study reported somewhat varying accomplishments, however. In particular, at least one-fourth of those students who enrolled for advanced study in biological sciences or in physical sciences and mathematics had earned a Ph.D. degree by late 1971; the comparable proportion in social sciences was 16 percent and in "other" fields was as low as three percent. The experience of students in health fields was quite different: There were 48 percent with an M.D. degree, 23 percent with a D.D.S. or D.V.M. degree, as many as 13 percent with a master's, and even two percent with the Ph.D. degree. As a result, only 14 percent of all students who had entered advanced study in health fields had not yet earned an advanced degree. In contrast, at least a third of graduate students in all of the other field categories had not yet earned any advanced degree. The data in Table 108 indicate that almost all of the students without any advanced degree in 1971 did intend to earn one by 1975; in fact, it appears that most of the graduate students in the 1961 cohort expected to finish their studies by 1975, since the distributions in Table 108 are quite similar to those in Table 107.

The members of the 1966 cohort who had enrolled for advanced study typically had not yet earned a graduate degree by late 1971; at best, a small proportion had earned master's degrees (ranging from four percent in biological and health sciences to 13 percent and 11 percent in social sciences and "other" fields, respectively). In terms of their degree aspirations, at least one-fourth hope to earn a Ph.D. eventually (Table 107), and almost half plan to earn a master's degree. In general, the distribution of degree aspirations for the 1966 cohort is quite similar to that for the 1961 cohort; in some particular fields, larger proportions hope to earn Ph.D. degrees, but the difference may well be attributable to less realistic goal objectives for 1966 freshmen, rather than to increased ambition.

The varying patterns of degree completion for different fields and for the two cohorts jointly produced the results shown in Table 109, on the graduate major of those who had completed their graduate study by the time of the followup survey. Thus, of the 1961 cohort students who had earned a Ph.D. or professional degree, the largest proportion (35 percent) had earned a law degree, followed by 29 percent who had earned a degree in the health fields (mainly an M.D.). Ten percent of doctoral degree recipients had majored in physical sciences or mathematics, and six percent had specialized in the biological sciences.

Students who decided to complete their studies at the master's level, in both cohorts, showed a very different pattern. Most master's degree recipients took majors in education, in business, or in "other" fields; in contrast, very few of these students had majored in biological sciences or in physical sciences and mathematics.

Tables 110, 111, and 112 present data on the degree accomplishments of graduate students in the 1961 cohort, particularly with regard to the time required to complete their degree studies. As can be seen, for instance (Table 110), relatively few students were able to complete a master's degree in a year's time; two years' time was much more typical, especially in science fields. Similarly, on the doctoral level, it was mainly students in "other" fields, most likely those in law, who had earned a Ph.D. or professional degree after three years of advanced study; in all other fields, very few had completed their studies in less than four years' time.

However, students terminating their studies at the master's level showed a rather varied pattern in terms of the actual year they received their master's degree, with roughly equal numbers being awarded the degree in each individual year between 1967 and 1971 (Table 111). Students in biological sciences and in social sciences were somewhat different with about a third or more (31 percent and 46 percent, respectively) having received it in 1967.

The pattern for completion of Ph.D. or professional study also shows some variation over time (Table 112); in general, a third of the Ph.D. recipients in the 1961 cohort received their doctorate degrees in 1971, and close to a third had earned the degree in 1970. Students in biological sciences and physical sciences more often received their Ph.D. degrees in 1970, whereas students in soical sciences and "other" fields more often received their doctorate degrees during 1971. The pattern of completion of professional degrees (mainly legal or medical degrees) showed somewhat greater concentration in certain years. More than half of those who completed their study in "other" fields had received their professional degrees in 1968 (presumably most of these were law degrees). Similarly, almost half of the professional degrees in health fields were awarded in 1969.

Study Progress: Students Who Had Not Completed Their Studies

Among members of the 1961 cohort, only 7 percent of all graduate students were still enrolled for graduate work in late 1971, although as many as 41 percent reported plans to re-enroll for a graduate degree at some time in the future (see Table 96). The circumstances of the 1966 cohort were quite different: as many as 60 percent were currently enrolled, and only 23 percent had interrupted their graduate training but intended to re-enroll (see Table 97). In this section, these somewhat diverse groups are examined more closely, in order to assess the amount of study they have completed, their degree plans and the likelihood that they will finish their studies.

Tables 113 and 114 show the distribution of these students by graduate major. Several distinctive patterns can be observed. The 1961 cohort students who were still enrolled for graduate work were primarily in the humanities, in the biological sciences and in the physical sciences. In contrast, the large number of currently enrolled students in the 1966 cohort included a greater proportion in education and in health fields, and a smaller proportion in the two science areas, biological and physical sciences. This difference mainly reflects the unusually large proportion of science students among 1961 cohort students still enrolled for graduate study and possibly, too, a relative concentration of graduate study in education in the first years beyond the bachelor's degree.

The other two categories of students who had not yet completed their studies -- those who had earned a master's degree and those with no advanced degree -- reported a somewhat different pattern of major fields of study as compared to currently enrolled students, although there was remarkable similarity between the two cohorts. Thus, in both cohorts, about a quarter of the students who interrupted their studies reported education majors, between 14 and 15 percent had majors in the humanities, and 11 to 16 percent had majors in business; in addition, a good proportion (20 percent) reported a major in other fields. By way of contrast, very few students in these two categories of students who interrupted their studies had taken majors in biological sciences, physical sciences, law, or engineering.

Because the various categories of students who have not completed their studies is so varied, a more detailed discussion of their progress will focus on one group at a time. Thus, for instance, examination of the data in Tables 116 and 117 document quite well the fact that most of those students in the 1961 cohort who were still enrolled were at rather advanced stages of graduate work; this was particularly true in biological sciences, physical sciences, and social sciences (fields which together represent 30 percent of the currently enrolled category, (see Table 115), but much less true of students in "other" fields. Indeed, about one-half of these currently enrolled students had already earned a master's degree (Table 118), with the highest proportions in physical sciences (70 percent) and social sciences (75 percent). In health fields, one-fifth of the 1961 cohort students who were still enrolled had already earned a Ph.D. or a professional degree. As might be expected, then (Table 119), the currently enrolled students from the 1961 cohort almost all intended to earn their discipline's highest degree eventually (an M.D. or D.D.S. in health fields, a Ph.D. in the remaining fields).

The current status and plans of the 1961 cohort students who intended to re-enroll at some time were quite different. Most of those without any advanced degree, for instance, had completed a year's study at best (see Table 116), although sizable proportions in biological sciences, social sciences, and health fields had completed three or more years of graduate work.

Of the 1961 cohort students who had earned a master's degree, but still intended to return for more graduate training, a good deal of variation exists among graduate fields in the amount of study already completed (Table 116). In biological and physical sciences, almost all had completed more than two years, and about 40 percent reported four or more years of training completed. Students in social sciences approximated this pattern somewhat, although a smaller proportion had completed four or more years. In contrast, students who interrupted their studies in health fields at the master's level typically had completed no more than two years of training.

In terms of their long-range degree plans, almost all of the 1961 cohort students who interrupted their studies after obtaining a master's did expect to earn a Ph.D. degree eventually (Table 119). In comparison, of those who did not yet hold any advanced degree, most planned on a master's as their highest degree goal; however, in biological sciences, social sciences, and health fields, a third of these students did hope to earn a Ph.D. or professional degree some day.

In turning to the 1966 cohort now, one can see a very different pattern of academic progress. Among students in the 1966 cohort who were currently enrolled, for instance, most had completed one year or less of advanced study (Table 117). The same was true of 1966 cohort students who interrupted their training without earning any advanced degree. However, about one-fifth of these students (especially in health fields, physical sciences and "other" fields) reported that they had not completed any amount of graduate study; presumably, many of these students were studying part-time or interrupted their studies in the middle of a term. In contrast, the third group -- those who had earned a master's by the time of the survey, but planned to go back for further training -- had almost always completed one year's training, and in some cases (especially in physical sciences and health fields), reported having completed two years of study.

Because the 1961 freshmen had a longer span of time for advanced study, graduate students in this cohort were asked a number of additional questions about academic progress that were not asked of students in the1966 cohort. In one of these questions, students who had not yet completed their study were asked to report on their progress in meeting a number of typical graduate study requirements. Tables 120 and 121 present the pattern of response for different groups of students. In general, it can be seen that only about one-fifth of those who had not completed their studies had at least completed all master's level requirements (Table 120); a similar proportion indicated that they had passed general qualifying examinations. Probably in consequence, most of these students were currently working on master's level or course requirements, and very few were working on any other degree requirements.

Table 121 shows the responses of students at varying stages of academic progress. It can be seen, for instance, that among currently enrolled students, slightly under half had completed master's level requirements, although a third were still working on these requirements. About a third of currently enrolled students reported that they had completed course work and language requirements, as well as their qualifying exams; fifteen percent were working to develop a dissertation topic, and eleven percent were in the process of getting their dissertations approved.

In sharp contrast, among the students who interrupted their studies short of earning an advanced degree, as many as 68 percent reported that they were working on master's level requirements (Table 121), and very few could report having completed any type of requirement. Of students who already earned a master's degree but intend to re-enroll, about a third reported having completed course work, language, residence, and examination requirements; a quarter even indicated that their dissertation topic had been approved. However, it should be noted that relatively few of these students were working on any particular requirement; fourteen percent were working on their dissertations, and a similar proportion were at the earlier stage of attempting to get their dissertation topics approved.

Regardless of their particular stage of progress, most students felt that they would eventually finish their studies. Thus, for instance, of the 1961 cohort students who were currently enrolled in graduate school, about 80 percent in each field (except physical sciences) felt that they would "definitely" finish their studies (Table 123); most of the others were almost as confident, indicating that they would "probably" finish eventually.

Among 1961 cohort sudents who had interrupted their studies before earning an advanced degree, between a third and half in the different fields of study still felt they would definitely finish their studies although students in this situation more often chose the modest assessment that they would probably finish eventually; a small proportion (ranging from 5 percent in health fields to 15 percent in physical sciences) thought they may not even finish their studies, but hardly any (between one and three percent) would say that they were unlikely to receive their degree.[10]

As is indicated by the data in Table 122, women graduate students were somewhat more likely than men to say that they would "probably" finish and, in turn, were less likely than men to give the stronger response, that they would definitely finish their studies. As compared to white students, the black graduate students who had not completed their studies were relatively more confident that they would finish their degree work: most gave the assessment that they would "definitely" finish, and none felt that they may not or were unlikely to complete their studies.

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[10] Results were not presented for those students with a master's degree who hoped to return to graduate school because of small numbers in many categories.

Graduate Experiences and Problems

In the process of pursuing their advanced study, students inevitably encountered a range of experiences, whether because of differences in study objectives and major fields, or in types of universities, departmental arrangements, etc. In this section, some attention is given to variations in student experiences, especially those that might facilitate or hinder their academic progress.

Table 124 gives a rather detailed picture of graduate experiences for the total group of graduate students in the 1961 cohort. As can be seen, close to half of all students felt they had been able to adjust the program to their interests and had a good amount of study-related experience, as well as many informal talks with faculty members. A small proportion thought their advisor had given them good assistance (21 percent), or reported being able to work on research projects during their studies. Financial problems had been a concern for almost a third of students, although fellowship cutoffs had not been part of the problem. Academic troubles were infrequently reported: 17 percent said they sometimes had trouble concentrating, and only five percent said they had failed a course in graduate school.

Generally speaking, slightly fewer women graduate students reported occurrence of any of the listed experiences. Relative to men, for instance, women students were less likely to report having had many informal talks with faculty members.

Black students (who comprised about two percent of all graduate students in the 1961 cohort) cited a number of these experiences more often than did students in general. Higher proportions of blacks reported having many informal talks with faculty and being able to adjust the program to their own interests, while they more often had worked (or expected to work) on full-time jobs while also writing their theses. On the other hand, smaller proportions of black students reported having trouble concentrating on their studies, or having a major concern for meeting expenses than did students in general.

While students in physical sciences and mathematics, social sciences and other (nonscience) fields showed minor variations on the pattern for all students, graduate students in health fields and in biological sciences seem to follow distinctive patterns (Table 125). Those in the biological sciences showed the highest proportions reporting such experiences as good amounts of study-related experiences, good assistance from their advisors, many informal talks with faculty, opportunities to work on research projects, and the ability to adjust the program to their own interests. Even though a small percentage (ten percent), students in biological sciences tended to indicate that they had failed a course somewhat more often than other students. For students in health fields, some experiences were quite frequently reported (as, for instance, study-related experiences and informal talks with faculty) while other experiences occurred less frequently; as compared with other graduate students, relatively few students in health fields cited good assistance from an advisor, being able to adjust the program to individual interests, or participating in research. Conversely, more students in the health fields reported that they had a major concern with meeting expenses.

Students at varying stages of advanced study (Table 126) reported different experiences to some extent. Generally, those who have successfully completed a degree program more often reported certain positive experiences, whereas among those who had earned no advanced degree and were no longer enrolled, few reported positive experiences, for instance, good assistance from an advisor. Without further examination, however, it is not clear whether this variation arises from differential time and opportunity in which to have certain experiences, or from differential experiences *per se*. It can also be seen that currently enrolled students expressed greater concern with meeting expenses than did other groups; this may be due either to the changed financial situation for graduate study or to the greater financial burden carried by these students while undertaking graduate study at about age 29 or 30.

Students were also asked to indicate whether particular experiences had represented obstacles to completion of their studies. As can be seen in Tables 127, 128, and 129, only a small proportion of students felt they had experienced any one serious obstacle. The obstacle cited most often (18 percent) involved pressures relating to family obligations. Financial problems and loss of interest in studies were the next most frequently cited factors, at 15 and 14 percent respectively. The same ranking occurred among women students, although family obligations were mentioned much more often by them. Among black students, on the other hand, financial problems took precedence over other possible obstacles (Table 127).

There were some notable variations among graduate fields (Table 128) with respect to perceived obstacles. Duties involved in teaching assistantships, for instance, were more often troublesome for students in biological and physical sciences; social science students more often cited difficulties with respect to the dissertation; the related problems of loss of interest in studies and changes in academic interest were more often cited by students in social sciences and by those in physical sciences and mathematics. It should be noted that only seven percent of students in health fields (the lowest percentage among all fields) felt that financial problems had been a serious obstacle to their progress, even though more of them had acknowledged a major concern with meeting expenses (Table 125).

As with the data on experiences, students at varying stages of academic progress reflect differences in terms of encountering obstacles (Table 129). While the same analytical problem exists of separating differences in sheer opportunity from actual differences in experience, it might still be noted that those students who have interrupted or given up their studies completely without earning an advanced degree did tend to cite financial problems, family obligations and loss of interest in studies as obstacles to their progress much more often than did the other groups.

The responses to another question, which probed the reasons for interrupting study, showed quite similar results (Tables 130, 131, and 132). Among men, the most frequent reason for interrupting their advanced study was taking a job, followed by the generalized factors of being tired of studying, wanting to reconsider interests, or changing career plans (Table 30). Among women students who interrupted their studies, situational factors were most salient: The demands of home or child care responsibilities was the main reason reported, while taking a job, being tired of studying and moving to a different location were also mentioned frequently. In contrast, for both men and women, financial problems, dissatisfactions with the program, or academic difficulties were mentioned much less often.

Among black students, taking a job was clearly the primary cause of any interruptions, followed by the possibly related factor of home or child care responsibilities. Being tired of studies, dissatisfaction, or the need to reconsider interests were less often cited by black students than by students in general.

Students in the different fields of study showed rather general agreement, in that taking a job and being tired of one's studies were the major reasons for interruptions (Table 131). The main variation among fields appears among those students who had interrupted their studies in the health fields; their general pattern of response was similar, but in most instances any particular factor was less frequently mentioned by health field students than by others. Notably, only five percent of these students had interrupted their studies because of dissatisfactions with the program, as compared to 15 percent of all graduate students. Students in biological sciences were also somewhat distinctive: They were somewhat more likely than others to cite difficulties with courses or examinations, for instance, and were generally less likely than others to mention a change in career plans, dissatisfaction, lack of an adequate program, or financial problems.

The same general factors -- taking a job and being tired of studying -- were also popular among students at varying stages of academic progress (Table 132). There was variation on other factors, however. As might be expected, those who held no advanced degree and planned no further study were the most likely to say that dissatisfaction was a factor in their interruption; in contrast, relatively few of those who interrupted their studies but still had earned a Ph.D. or professional degree by the time of the study mentioned dissatisfaction. Ph.D. recipients also were unlikely to mention moving or home and child care responsibilities as factors in the interruption of their studies. Some differences existed between the two groups designated as having "interrupted their studies" by the advanced study index: Those students in this category who did not yet hold any advanced degree mentioned home or child care responsibilities as a reason for interruption almost as often as taking a job (36 versus 39 percent) and they were the group most likely to mention moving to a new location. In contrast, relatively few of the students who interrupted their studies after earning a master's degree mentioned home or child care as a factor in their interruption (20 percent); in this group, taking a job (53 percent) and being tired of their studies (38 percent) were the most salient reasons for their interruption of studies.

Financing of Graduate Education

In an effort to evaluate patterns of financial support for graduate education, students were asked to indicate the one main source by which they supported their first year of graduate study, as well as all current sources of financial support, whatever the amount from each source. *For both questions, it should be noted that the relevant circumstances for the responses of the two cohorts differed substantially.* The first year of study was typically 1965 for the older cohort, whereas 1966 cohort members generally began their first graduate year in 1970, at a time when patterns of federal funding for higher education had changed in several important respects. So also, for the question on current sources, most 1966 cohort members were still enrolled at the time of the followup survey, and at best in their second year of study, whereas relatively few of the 1961 cohort were still in school, probably a mixture of latecomers to graduate study and others still enrolled at advanced stages of doctoral work.

Despite such contextual differences, the broad pattern of support is quite similar for the two cohorts (Tables 133 and 134); over 40 percent in each group had relied on their own resources (primarily savings or family earnings), for the major amount of their first year expenses, about one-fourth relied on employment earnings, and just under 20 percent cited fellowships as the major source of support for their first year of study. Particular sources had differing relative importance between the two cohorts, however. The extent of NSF, NIH, and NDEA fellowships, for instance, had declined by the time the 1966 cohort entered graduate school, as had the extent of business or industry fellowships. On the other hand, a number of other sources (school or university fellowships, state or local government fellowships, part-time employment and loans) were cited slightly more often by members of the 1966 cohort than by those in the 1961 cohort. Reliance on one's parents or relatives as the main source of support also increased substantially between the two cohorts. Two differences that can be noted, of greater reliance on G.I. benefits or spouse's earning by the 1961 cohort, may well be merely a reflection of age differences, i.e., that students in the 1966 cohort were less likely to be married or to have become veterans and return to graduate school by 1971.

Among the 1961 cohort (Table 133), some sex differences are observed in terms of first-year financial support: As compared to men, smaller proportions of women received fellowships and assistantships or relied primarily on parental support, whereas they more often relied on their savings, their own employment, or on their spouses' earnings. In contrast, much less difference between men and women students is shown for the 1966 cohort (Table 134): Overall, there is little difference, and only a few particular sources (e.g., school or university fellowships) seem to favor men.

Several major differences occurred among graduate fields in patterns of financial support (see Tables 135 and 136). In biological or physical sciences, it can be seen that most support was in the form of fellowships (36 percent) or assistantships (40 percent). This pattern exists for both cohorts, although certain elements within this pattern have changed recently. Thus, compared to the 1961 cohort, smaller proportions of 1966 cohort members had fellowships as their primary source of first-year support. Those in biological sciences apparently fell back on family support to a greater extent, whereas those in physical sciences showed increased reliance on assistantships and savings.

In contrast, among both cohorts, students in other (nonscience) fields primarily relied on their own resources (either their own savings, employment or family support), although close to 20 percent were supported for their first year's study by fellowship sources. Support for study in the social sciences reflects a pattern that falls somewhere between the trends shown by the natural sciences and, on the other hand, by other fields. Fellowships were a major first-year source of suuport for almost 30 percent of social science students in both cohorts, while a good number of others held assistantships; thus, less than a third had relied primarily on family support or savings.

Support for study in the health fields was very different. About half of the students, in both cohorts, cited their family or spouse as their major source of support for their first year's study. Relatively few reported any type of employment as a major source, whereas about 20 percent cited fellowships. Notably, more of the 1966 cohort students in health fields had fellowships than did 1961 cohort students.

Students at varying stages of academic progress at the time of the survey also reported different patterns of financial support for their first-year studies (Tables 137 and 138). Among 1961 freshmen, the currently enrolled students frequently cited fellowships and assistantships. In contrast, among the 1966 cohort, currently enrolled students (generally at early stages of graduate study) less often reported having fellowships or assistantships and more often fell back on savings or their families for major financial support.

Among both cohorts, there is an apparent trend in which students who have already earned degrees were more likely to begin their graduate work with fellowship support than were students who have interrupted or given up on graduate study before completing a degree program. A variety of factors must be controlled before a full explanation of this difference is possible, however. Further research to be undertaken will clarify some of the differential effects of finances on educational progress.

The responses to a question about the financial arrangements of students currently enrolled for graduate study -- in which all sources of support were to be cited, regardless of amount -- add further perspective to the overall graduate support pattern (Tables 139-142). A number of sources now take on more prominence, among them school or university fellowships, teaching and research assistantships, other part-time employment, savings, spouse's earnings, and G.I. benefits. Comparing the two cohorts (Tables 139 and 140), one notes certain differences, also, particularly with fellowships, assistantships and family support. The differences probably reflect (1) the advanced stages of study common to many members of the 1961 cohort, (2) differences in marital status, and (3) recent cutbacks in some sources of fellowship support.

The pattern of financing varied to some extent by sex (Tables 139 and 140) and by field of study (Tables 141 and 142). In general, more men than women held assistantships, received school or university fellowships, and, to a lesser extent, took out loans as a source of financial support. In addition, particular sources of support were more popular in some fields than in others. In both cohorts, students enrolled in health fields clearly made use of loans and family assistance (whether parents, relatives or spouses) more frequently than did other graduate students.

Among students currently enrolled in the biological and physical sciences, teaching assistantships and research assistantships were a frequent source; this was particularly true for 1961 cohort students in these fields. In the biological sciences, NIH/NIMH fellowships were quite frequently mentioned by 1961 cohort members, but much less often by students in the 1966 cohort. Commercial loans were also more frequently mentioned by 1961 cohort members. In contrast, 1966 cohort students in biological or physical sciences cited the assistance of employers as a source of support more often than did 1961 cohort students.

Although the varying time frame for the two cohorts makes it hazardous to compare sources of support for students who were enrolled in graduate school at the time of the study, there does seem to be some evidence that patterns of support are shifting; in a context of announcements of federal cutbacks in a number of programs of graduate fellowship support, the more recent cohort of graduate students has increasingly turned to school or university fellowships or instead to their families in order to support the costs of their advanced study.

Table 143 should be of some interest to those who are concerned that the shifting pattern of financial support for graduate education may affect student decisions on whether to enroll in graduate school or what institutions they will attend. These issues will be dealt with in considerable detail in a later report, but certain general points can be made at this time on the basis of the data in Table 143. Graduate students in the 1966 cohort were asked whether they had enrolled at their first-choice graduate institution: Of those responding to the question, there were 19 percent who said no, they had not, it can be seen, however, that enrolling at other than the first-choice school occurred more often among students in sciences and health fields than among students in all other fields.

For men, the major reason for not enrolling at the first-choice institution was simply that they were not accepted (61 percent). In contrast, the major reason given by women was "other reasons, not financial". It should be noted that one-fourth of the women did not attend their first-choice institution due to the fact that no financial assistance was offered.

The experiences of students in physical sciences and mathematics, in biological sciences, and in health fields present some contrast to the overall pattern. In physical sciences, for instance, sizable proportions of students reported that they had not attended their first-choice school because of financial considerations -- either that no assistance was offered by the first-choice school (30 percent), that an unacceptable amount of assistance was offered (13 percent), or that a better financial offer had been made at the school they did attend (17 percent). Among students in the biological sciences, not being accepted was mentioned most often, but a larger than average proportion also reported that the lack of any offer of financial assistance had been a factor in their not attending their first-choice graduate institution. The distribution of reasons was much different among students who had enrolled for graduate work in health fields: The great majority (74 percent) reported that they had not attended their first-choice school because they had not been accepted there; in contrast, hardly any mentioned financial considerations. Thus, as with other data on the financial arrangements of graduate students, the experiences of students in health fields appear to be very different from those of other students.

Indebtedness for Education

At a time when higher education is faced with a variety of financial problems, one important policy issue has concerned the extent to which the consumer -- that is, the student -- is willing to bear additional costs for his education. In this section, data are presented on the extent to which students in the two cohorts under study here have taken out loans to support either their undergraduate or graduate study; in addition, student responses are examined on a question about the maximum amount of loans they would ever take for educational purposes. *These questions were asked only of students who had at least some graduate study experience.*

The general pattern is clear: Among members of the 1961 cohort, 71 percent of all graduate students had never taken a loan to support their advanced study, and 64 percent had completed their undergraduate study without needing any loans. This pattern varied slightly by sex and race, however; men somewhat more often than women, and black students somewhat more than white students, reported taking out any loans (Tables 144 and 145).

The overall experience of the 1966 cohort appears to be somewhat different (Table 145). First, it can be seen that a slightly increased proportion of graduate students found it necessary to take out loans for their undergraduate studies (40 percent versus 36 percent). Further, it can be seen that, despite their relatively short experience in graduate study, 1966 cohort students were similar to those of the 1961 cohort in the proportion who took out loans for graduate education.

It should also be noted that black students in the 1966 cohort were an important exception to the general pattern (Table 145); indeed, only a third had completed their undergraduate studies without taking a loan, and only 40 percent had not yet taken out any loans for graduate study. This represents a marked difference from the loan experiences of other students.

Among those who did take out loans, amounts between $1000 and $2000 were most frequently mentioned. At the most, only about six percent had incurred debts of $4000 or more for their undergraduate or graduate education. Again, however, the pattern varies upward for the 1966 cohort, in which 17 percent reported undergraduate loans of $2000 to $4000.

As can be seen from Tables 146 and 147, there was some variation in the loan experiences of students in different fields of study. On the undergraduate level, the main variation was that, among the 1966 cohort, graduate students in social sciences or other fields were more likely than those in the remaining science and health fields to have taken out an undergraduate loan. This experience does not apply to the 1961 cohort. With respect to advanced study, certain other variations should be noted. In both cohorts, about half of the students in health fields took out loans to support their advanced studies -- a proportion considerably higher than that found in other fields. Students in health fields were also much more likely than others to have incurred quite sizable debts in order to pay for their training. Among 1961 cohort students, most of whom have completed or are near completion of studies, as many as 28 percent of students in health fields had incurred graduate-level debts of over $4000; another 11 percent had taken out loans totalling between $2000 and $4000 in order to pay for their advanced study. Among the 1966 cohort, as many as 20 percent of students in health fields had already incurred loans of $2000 to $4000 for their advanced training, even though they were typically in only their second year of training; another 13 percent of these students had already taken out loans of over $4000 for their advanced study.

In contrast, a relatively small proportion of the students doing graduate work in physical sciences or mathematics (21 percent of the 1961 cohort and 14 percent of the 1966 cohort) found it necessary to borrow money to support the costs of their advanced study; and those few who did take loans typically limited the amount to less than $2000.

Although only about a third of graduate students had actually taken out educational loans, more than half indicated their readiness to do so (see Table 150 and 151). Men more often than women, black students more often than others, and members of the 1966 cohort more often than members of the 1961 cohort, indicated that, if necessary, they would accept loans to support their education. A comparison of students in different fields on the proportion citing any amount indicates that graduate students in health fields showed the greatest willingness to take out loans (Tables 152 and 153).

Regarding the maximum amount of loan they would incur, student choices concentrated around moderate amounts, generally ranging no higher than $2000 to $4000. In both cohorts, men more often than women, and black students in the 1961 cohort more often than whites, cited amounts of $4000 or higher when asked about the maximum amount of loan they would accept (Tables 150 and 151). Comparison of the responses of students at varying stages of progress (Tables 154 and 155) indicates that currently enrolled students, in both cohorts, were somewhat more willing than others to incur loans for their education, and that a greater proportion (30 percent and 26 percent respectively, in the two cohorts) chose maximum amounts ranging $4000 and above. Their responses contrast most sharply with the amounts considered acceptable by students who have completed their studies with either a master's degree or with no advanced degree at all; for these groups, only ten percent from the 1961 cohort and 16 percent from the 1966 cohort said they would be willing to accept education loans of $4000 or more.

So too, in health fields, students again departed from the general pattern, and showed a much greater willingness to incur sizable debts to pay for their training (Tables 152 and 153). All together, 46 percent and 55 percent of students in health fields (for the 1961 and 1966 cohorts, respectively) indicated that they would be willing to accept debts of $4000 or more in order to get their training; indeed, included in these figures were about 20 percent of the health field students who were willing to accept loans of $10,000 or more if necessary to pay for their advanced training. Whether because of the experiences they already had with loans (see Tables 146 and 147), their apparent commitment to the field, or confidence in the long-run worth of their training, health field students appeared to have been much more willing than others to incur large debts for their education.

Conclusions

The 1971 followup of college freshmen of 1961 and 1966 was designed to address a great number of questions regarding the educational and career development of college students over time. The findings presented in this report provide a rather comprehensive picture of the status, plans, and goals of the two classes by year 1971, as well as a retrospective view of their experiences during and after their years of study. As such, they suggest some tentative conclusions on certain issues, as well as directions for further investigations utilizing the entire longitudinal file.

The findings in this report support the view that patterns of educational progress are neither rapid nor neat. Many students do not enroll continuously to completion of degree. In particular, four years after attainment of the baccalaureate degree is apparently an unrealistic period for completion of Ph.D. requirements. Only five percent of the 1961 cohort graduate students received a Ph.D. by 1971, but four times that many planned to obtain the Ph.D. in the future. Moreover, a majority of those who already received this degree completed their studies in either 1970 or 1971; that is, five or six years after college graduation. Further analyses will assess in greater detail the relationship of field of study, sex and grade point average to the amount of time required to obtain this degree.

Over all, the findings suggest that college students in both cohorts held high degree aspirations and that many will achieve these levels even though not immediately. Few in either cohort planned to terminate their studies with an associate or no degree. The output of bachelor's recipients among 1961 freshmen continued throughout the ten years between college entry and the 1971 followup, so that about one-fourth of the cohort graduated after the standard four-year period. Furthermore, the majority of those who enrolled for advanced study did so between 1966 and 1971 rather than in the fall of 1965 as might have been expected.

Certain findings in this report suggest that recent cutbacks in Federal aid may have a detrimental impact on whether or not these students eventually achieve the high degree levels to which they aspire. In addition to the fact that financial problems were a greater deterrent to enrollment for advanced study among members of the recent cohort than among the earlier class, it is evident that, once enrolled, financial problems represent an obstacle to degree completion. Although most students who interrupted their advanced studies did so by preference (e.g., they took a job or tired of their studies), one-sixth mentioned financial problems as a reason. Furthermore, students who had interrupted their studies with no advanced degree were more likely than other groups to report that financial problems were a serious obstacle to degree completion.

Of course, many factors probably interact with financial aid in affecting graduate study outcomes. For example, the apparent association between starting advanced study with fellowship support and earning an advanced degree may be due to the high aptitude of fellowship recipients. Interrelationships such as these will be a major focus of our further analyses utilizing the longitudinal data files.

In general, great similarity exists between the two cohorts with respect to plans, goals, and values. Their long-run degree plans were practically identical, as were their graduate major fields of study (actual or planned), and their career aspirations. Furthermore, the cohorts were so remarkably similar with respect to the values of persons attracted to the different fields of specialization, as to permit some rather broad generalizations. One of the few notable differences between the cohorts was the choice by relatively many freshmen of long-run employment involving research or services to patients or clients, whereas fewer in this recent class planned major involvement in administrative activities. However, this difference may be due in part to a possible increased interest in administrative activities among the 1961 cohort as they progressed in their careers.

With respect to career aspirations, it appears that the pool for careers requiring scientific or rigorous specialized training are substantially defined during the undergraduate years, whereas business careers gain recruits on a continuous basis both during and after college years. Our planned analyses of career choice flows from freshman to senior year and senior year to followup year should clarify these apparent patterns in career decision-making.

A fundamental difficulty in assessing current differences between the cohorts was posed by the difference in time frame and the difference in the scope of the universe, i.e. inclusion of junior college entrants in the 1966 cohort. The 1961 freshmen were for the most part, beyond the years of study and settled into their careers; many 1966 freshmen, on the other hand, were finishing up their undergraduate studies or at the beginning of advanced study or careers. Thus, from followup data alone, it was sometimes difficult to determine whether differences between the cohorts were the product of some trend among college classes or changes in society at large. For example, compared to the 1961 freshmen, the more recent class had faced a more difficult job search and were less satisfied with their jobs. This finding can be explained, to some extent, by the fact that the 1966 freshmen in the labor force were younger, less experienced, and held fewer advanced degrees than the 1961 class; and therefore, a future followup of the 1966 cohort would be necessary to determine the extent to which new classes of college-educated youths have been affected by changes in the job market.

From the data on hand, it is evident that certain subgroups within the college population encounter greater difficulty than others in finding satisfactory jobs. While the unemployment rates of both cohorts as a whole were less than might have been expected -- and, indeed, few Ph.D.'s were unemployed -- biological scientists were more likely than others to be unemployed, to have encountered a difficult job search, and to be underpaid. Health field majors found the most compatible jobs and reported the highest earnings of any groups.

Throughout the report, differences between men and women were noted. In spite of the substantially higher undergraduate grade point averages women achieved compared to men, women expressed relatively lower educational and career aspirations.

Women students in the recent class appear to be more ambitious than those in the 1961 cohort; the patterns of advanced study enrollment of the two classes suggest that higher proportions of women will attend graduate or professional school, and therefore, more may obtain advanced degrees. However, the proportion of women who aspired to a Ph.D. or professional degree was about the same for the two cohorts. The many differences between the sexes with respect to graduate experiences and financing, as well as career plans and goals, suggest the need for future analyses in order to examine predictors of differential outcomes separately for men and women.

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TABLES

Table 1

Significant Predictors of Response - 1961 Cohort
(N = 11,975; R = .35)

Independent Variable	Final Equation Beta Weight	Final Equation F Ratio	Zero Order r
Responded to 1965 questionnaire	.160	108.0553	.308
Responded to 1965 questionnaire or to one postcard	.144	87.8932	.306
Responded to 1962 followup	.074	70.4522	-.007
High school grades	.066	48.4917	.132
Father's education	.042	19.8717	.054
Highest degree sought: doctorate	-.038	17.8423	-.001
Sex (female)	-.037	14.2146	.012
Father's occupation: farmer	.033	13.4178	.034
Major field: physical sciences	.029	10.5617	.026
Father's occupation: all others	-.028	10.2454	-.007
Father's occupation: physician or dentist	-.028	9.5786	-.006
Career choice: laboratory technician	.024	7.8168	.027
Won literary award during high school	.024	7.3476	.047
Won state music contest during high school	.022	6.3176	.040
Career choice: foreign service, government	-.021	5.7120	.136
Highest degree sought: less than bachelor's	-.020	5.2868	-.044
Father's occupation: skilled worker	.019	4.7766	.015
Career choice: teacher	.020	4.6725	.013
Career choice: journalist, writer	-.018	4.3426	-.023

Table 2

Significant Predictors of Response - 1966 Cohort
(N = 10,344; R = .26)

Independent Variable	Final Equation Beta Weight	Final Equation F Ratio	Zero Order r
Activities: drove a car	.044	33.0747	.145
How long attended	.028	23.9540	.147
Important life goal: becoming an authority on a special subject	-.046	21.9891	-.010
Self ratings: self confidence, social	-.052	21.8764	-.061
High school grades	.050	18.8281	.035
Activities: arranged date for another student	-.042	16.3895	-.070
Activities: turned in paper late	-.039	15.4479	-.059
Self ratings: mechanical ability	.039	13.9564	.023
Activities: made wisecracks in class	.037	12.7632	.039
Sex (female)	.042	12.1269	.036
Age	-.035	11.7652	-.083
A. A. or higher (degree plans)	.048	11.7650	.141
Self ratings: self confidence, intellectual	.039	10.9321	.039
Activities: discussed how to make money	.032	10.4603	.020
Race: white	.041	10.4067	.100
Level of degree aspiration	.033	9.6842	.057
Race: black	-.040	9.4063	-.092
Self ratings: originality	-.032	9.2977	-.021
Activities: smoked cigarettes	-.030	8.8285	-.068
Activities: attended church	.029	8.6147	.052
Plan to marry while in college	-.027	7.7994	-.054
How financing college: personal savings	.029	7.6263	.052
Present religion: Protestant	.026	7.1224	.042
How financing college: employment during summer	.025	5.7983	.039
Activities: played in a band	.023	5.6050	.040
Participated in a state speech contest during high school	-.023	5.4973	-.012
Father's education	.023	5.3852	.052
Activities: sang in a choir	.023	5.2472	.034
Important life goal: becoming an outstanding athlete	-.023	4.9544	-.040
Activities: listened to Dixieland jazz	-.022	4.9448	-.004
Self ratings: stubbornness	-.021	4.8273	-.014

Table 3

Weighted and Unweighted N's, Selected Subgroups: Both Cohorts

Subgroup	1961 Cohort		1966 Cohort	
	Weighted N	Unweighted N	Weighted N	Unweighted N
Men	405,281	13,768	803,597	13,213
Women	300,231	10,379	586,927	12,177
Total	705,512	24,147	1,390,524	25,390
White	405,039	16,308	1,243,239	23,799
Black	9,203	129	69,363	649
American Indian	447	6	7,014	74
Oriental	914	66	10,494	187
Other	686	21	44,998	506
Unknown	289,223	7,617	15,416	175
Total, never enrolled for advanced study	316,673	9,798	905,734	129,751
Plan advanced study/hold bachelor's degree	89,281	3,155	335,372	6,241
Plan advanced study/do not hold bachelor's degree	25,588	643	202,411	2,055
Do not plan advanced study/hold bachelor's degree	107,023	3,695	121,282	2,247
Do not plan advanced study/do not hold bachelor's degree	94,781	2,305	246,669	2,408

Table 4

Weighted and Unweighted N's, by Advanced Study Index and Graduate Field: 1961 Freshmen Who Ever Enrolled for Advanced Study

Graduate Major	Total Ever Enrolled for Advanced Study	Currently Enrolled	Interrupted Studies: Hold No Advanced Degree	Interrupted Studies: Hold Master's Degree	Completed Studies: Hold No Advanced Degree	Completed Studies: Hold Master's Degree	Completed Studies: Hold Ph.D. or Professional Degree
UNWEIGHTED N'S							
Biological sciences	536	101	84	84	0	93	174
Physical sciences and mathematics	1,052	149	218	138	1	222	324
Health fields	1,073	82	70	31	4	51	[illegible]
Social sciences	978	121	244	247	3	161	202
All other fields	8,156	634	2,271	1,259	45	2,655	1,292
No graduate major given	1,899	30	323	62	1,347	119	18
Total	13,694	1,117	3,210	1,821	1,400	3,301	2,845
WEIGHTED N'S							
Biological sciences	11,789	2,602	2,734	1,521	0	2,006	2,926
Physical sciences and mathematics	21,569	3,026	5,946	2,858	6	4,342	5,391
Health fields	23,546	2,042	1,974	1,313	157	1,386	16,674
Social sciences	21,948	2,488	7,054	4,739	12	4,131	3,524
All other fields	220,654	16,083	73,948	32,275	1,488	69,704	27,156
No graduate major given	66,853	968	14,277	1,754	45,527	4,029	298
Total	366,359[a]	27,209	105,933	44,460	47,189	85,598	55,969

[a] Weighted numbers are rounded and do not always total exactly.

Table 5

Weighted and Unweighted N's, by Advanced Study Index and Graduate Field: 1966 Freshmen Who Ever Enrolled for Advanced Study

Graduate Major	Total Ever Enrolled for Advanced Study	Currently Enrolled	Interrupted Studies: Hold No Advanced Degree	Interrupted Studies: Hold Master's Degree	Completed Studies: Hold No Advanced Degree	Completed Studies: Hold Master's Degree
UNWEIGHTED N'S						
Biological sciences	267	224	37	4	1	1
Physical sciences and mathematics	519	417	73	12	1	16
Health fields	856	742	80	11	5	18
Social sciences	587	449	93	24	0	21
All other fields	4,679	3,335	827	188	20	309
No graduate major given	978	211	189	3	563	12
Total	7,886	5,378	1,299	242	590	377
WEIGHTED N'S						
Biological sciences	11,278	9,755	1,288	207	5	23
Physical sciences and mathematics	17,788	13,787	3,091	275	43	592
Health fields	37,821	31,651	4,490	464	407	810
Social sciences	23,565	17,290	4,604	926	0	745
All other fields	234,115	159,942	50,715	9,081	625	13,752
No graduate major given	79,582	10,600	14,515	132	53,348	987
Total	404,148[a]	234,024	78,702	11,084	54,429	16,910

[a] Weighted numbers are rounded and do not always total exactly.

Table 6

Current Primary Activity, by Sex: 1961 Cohort
(In Percentages)

Activity	Total (N=603,419)	Men (N=359,670)	Women (N=243,749)
Working full-time	67	80	47
Working part-time	6	4	9
In military service, active duty	3	5	1
Unemployed, looking for a job	1	2	1
Unemployed, not looking for a job	1	1	1
Housewife	15	1	37
Undergraduate student, full-time	1	1	1
Undergraduate student, part-time	*	*	*
Graduate student, full-time (including law, thesis work, etc.)	4	5	2
Graduate student, part-time (including law, thesis work, etc.)	1	1	1
Medical student (including dentistry and veterinary)	*	*	*
Medical intern or resident	1	1	*
Post-doctoral fellow or trainee	1	1	*
Total	100	100	100

*On this and subsequent tables, percentages of <.5 are indicated by an asterisk. Percentages have been rounded to the nearest integer with .5 or higher equal to 1. Because of rounding or the use of asterisks, the totals may vary within 98% and 102%.

Table 7

Current Activities, by Sex: 1966 Cohort
(In Percentages)

Activities	Total (N=1,390,524)	Men (N=803,597)	Women (N=586,927)
Working full-time	58	56	60
Working part-time	14	14	14
In military service, active duty	8	13	1
Unemployed, looking for a job	6	6	6
Unemployed, not looking for a job	4	3	6
Housewife	16	*	37
Undergraduate student, full-time	9	11	6
Undergraduate student, part-time	6	7	6
Graduate student, full-time (including law, thesis work, etc.)	8	10	6
Graduate student, part-time (including law, thesis work, etc.)	8	6	10
Medical student (including dentistry and veterinary)	2	3	1

Table 8

Current Activities, by Race: Both Cohorts
(In Percentages)

Activities (1961-Primary; 1966-All)	1961 Cohort		1966 Cohort					
	Total White (N=349,437)	Total Black (N=7,436)	Total White (N=1,243,23[illegible])	Total Black (N=69,363)	Black Men (N=32,003)	Black Women (N=37,360)	Total Oriental (N=10,494)	Total American Indian (N=7,014)
Working full-time	66	75	57	65	62	67	56	33
Working part-time	6	8	14	12	12	12	18	19
In military service, active duty	3	*	8	6	12	0	6	3
Unemployed, looking for a job	1	3	6	5	2	8	5	14
Unemployed, not looking for a job	1	0	5	2	3	2	*	5
Housewife	15	9	16	9	0	17	7	24
Undergraduate student, full-time	1	1	8	12	10	14	14	26
Undergraduate student, part-time	*	1	6	15	15	15	16	10
Graduate student, full-time	4	4	9	6	5	6	13	3
Graduate student, part-time	*	0	8	6	6	6	2	3
Medical student (Including dentistry and veterinary)	*	*	2	2	1	2	7	1
Medical intern or resident	1	1	-	-	-	-	-	-
Post-doctoral fellow or trainee	1	0	-	-	-	-	-	-
Total	100	100	100	100	100	100	100	100

Table 9

Marital Status, by Sex: Both Cohorts
(In Percentages)

Status	1961 Cohort			1966 Cohort		
	Total (N=703,619)	Men (N=404,040)	Women (N=299,579)	Total (N=1,386,892)	Men (N=801,101)	Women (N=585,790)
Single (never married)	18	20	16	50	56	43
Married (once only)	76	75	77	47	42	53
Remarried	3	3	3	1	1	1
Separated	1	1	1	1	1	1
Divorced	3	2	3	2	1	2
Widowed	*	*	*	*	*	*
Total	100	100	100	100	100	100

Table 10

Academic Progress by 1971, by Sex: Both Cohorts

	1961 Cohort			1966 Cohort		
Progress	Total (N=705,512)	Men (N=405,281)	Women (N=300,231)	Total (N=1,390,524)	Men (N=803,597)	Women (N=586,927)
	N	N	N	N	N	N
Ended studies with no undergraduate degree	44,026	21,455	22,571	93,872	47,666	46,206
Ended studies with an associate degree **	7,873	4,472	3,401	47,867	26,604	21,263
Never ended undergraduate studies	58,848	33,028	25,820	315,144	202,247	112,897
Received a bachelor's degree within four years **	372,160	190,918	181,242	629,073	332,959	296,114
Received bachelor's degree by 1971	541,548	320,174	221,374	790,615	442,139	348,476
Enrolled for advanced study (index total)	366,359	229,763	136,596	404,148	239,207	164,941
Received a master's degree	152,269	96,817	55,451	33,961	18,129	15,832
Received a Ph.D. or professional degree	56,710	47,216	9,494	-	-	-
Currently enrolled in graduate or professional school (including holders of advanced degrees)	27,209	20,098	7,110	243,025	150,185	92,840
	%*	%*	%*	%*	%*	%*
Ended studies with no undergraduate degree	6.2	5.3	7.5	6.8	5.9	7.9
Ended studies with an associate degree **	1.1	1.1	1.1	3.4	3.3	3.6
Never ended undergraduate studies	8.3	8.1	8.6	22.7	25.2	19.2
Received a bachelor's degree within four years **	52.8	47.1	60.4	45.2	41.4	50.5
Received a bachelor's degree by 1971	76.8	79.0	73.7	56.9	55.0	59.4
Enrolled for advanced study	51.9	56.7	45.5	29.1	29.8	28.1
Received a master's degree	21.6	23.9	18.5	2.4	2.3	2.7
Received a Ph.D. or professional degree	8.0	11.7	3.2	-	-	-
Currently enrolled in graduate or professional school (including holders of advanced degrees)	3.9	5.0	2.4	17.5	18.7	15.8

* These percents are based on the total cohort and, therefore, are lower than percents based on respondents to the particular questionnair items yielding the data. As such, they are conservative estimates. The percentages shown for the different undergraduate study outcomes add to less than 100% because of nonresponse.

** Freshmen in the 1961 cohort entered four-year colleges and universities; those in the 1966 cohort entered two-year colleges as well. This difference between the samples may account for differences in the proportions who received an associate degree or a bachelor's degree within four years.

Table 11

Highest Degree Currently Held, by Sex: Both Cohorts

Degree	1961 Cohort Total	1961 Cohort Men	1961 Cohort Women	1966 Cohort Total	1966 Cohort Men	1966 Cohort Women
	N	N	N	N	N	N
None	112,255	58,315	53,939	385,961	228,414	157,547
Associate or equivalent	12,417	7,334	5,083	137,206	87,595	49,611
Bachelor's (B.A., B.S., B.D.)	360,953	193,736	167,217	784,137	440,355	343,782
Master's (M.A., M.S.)	141,699	87,000	54,699	34,214	18,418	15,796
Ph.D. (or equivalent)	19,573	15,612	3,961	-	-	-
M.D.	11,295	9,391	1,904	-	-	-
D.D.S or D.V.M.	5,402	4,834	568	-	-	-
L.L.B. or J.D.	20,440	17,379	3,061	-	-	-
Other	9,681	4,857	4,825	11,955	4,177	7,778
Total	693,715	398,458	295,257	1,353,473	778,959	574,514
	%	%	%	%	%	%
None	16	15	18	29	29	27
Associate or equivalent	2	2	2	10	11	9
Bachelor's (B.A., B.S., B.D.)	52	49	57	58	56	60
Master's (M.A., M.S.)	20	22	19	3	2	3
Ph.D. (or equivalent)	3	4	1	-	-	-
M.D.	2	2	1	-	-	-
D.D.S. or D.V.M.	1	1	*	-	-	-
L.L.B. or J.D.	3	4	1	-	-	-
Other	1	1	2	1	1	1
Total	100	100	100	100	100	100

Table 12

Highest Degree Planned by 1975 and Ever, by Sex: Both Cohorts
(In Percentages)

Degree	1961 Cohort Total	1961 Cohort Men	1961 Cohort Women	1966 Cohort Total	1966 Cohort Men	1966 Cohort Women
Planned by 1975:						
None	11	9	14	11	9	14
Associate or equivalent	2	2	2	6	6	6
Bachelor's (B.A., B.S., B.D.)	36	32	42	38	38	38
Master's (M.A., M.S.)	33	34	33	35	33	37
Ph.D.	9	12	5	4	5	3
M.D.	2	3	1	2	2	1
D.D.S. or D.V.M	1	2	*	1	1	1
L.L.B. or J.D.	4	6	2	3	5	1
Other	1	1	1	1	1	1
Total	100	100	100	100	100	100
N	699,989	402,218	297,771	1,378,719	796,888	581,831
Planned ever:						
None	10	9	12	9	7	11
Associate or equivalent	1	1	1	5	5	5
Bachelor's (B.A., B.S., B.D.)	30	27	34	27	26	28
Master's (M.A., M.S.)	36	34	40	38	34	43
Ph.D. (or equivalent)	14	17	9	13	16	9
M.D.	2	3	1	2	3	1
D.D.S. or D.V.M.	1	2	*	1	1	*
L.L.B. or J.D.	5	7	2	5	7	1
Other	1	*	1	1	1	1
Total	100	100	100	100	100	100
N	695,932	399,485	296,447	1,381,516	798,623	582,893

Table 13

Highest Degree Current and Planned, by Race: Both Cohorts
(In Percentages)

Degree	1961 Cohort White	1961 Cohort Black	1966 Cohort White	1966 Cohort Black	1966 Cohort Oriental	1966 Cohort American Indian
Currently held:						
None	11	11	27	37	26	49
Associate or equivalent	2	4	10	11	17	26
Bachelor's (B.A., B.S., B.D.)	53	57	59	49	55	25
Master's (M.A., M.S.)	23	23	3	2	3	0
Ph.D. (or equivalent)	4	4	-	-	-	-
M.D.	2	*	-	-	-	-
D.D.S. or D.V.M.	1	*	-	-	-	-
L.L.B. or J.D.	3	*	-	-	-	-
Other	1	*	1	2	0	1
Total	100	100	100	100	100	100
N	401,573	9,128	1,214,682	63,351	10,287	6,613
Planned ever:*						
None	6	4	9	9	5	23
Associate or equivalent	1	1	5	4	3	5
Bachelor's (B.A., B.S., B.D.)	29	17	27	18	33	33
Master's (M.A., M.S.)	39	48	38	37	40	33
Ph.D. (or equivalent)	15	25	13	24	9	6
M.D.	3	3	2	3	7	0
D.D.S. or D.V.M.	1	*	1	2	4	*
L.L.B. or J.D.	6	2	5	2	*	0
Other	*	0	1	2	0	*
Total	100	100	100	100	100	100
N	400,505	9,186	1,236,033	68,080	10,494	7,014

* For the 1961 Cohort, the level of degree aspirations of both black and white respondents exceeds that indicated by the cohort as a whole (Table). This difference results from the reduced respondent base for the analyses by race (discussed on page

Table 14

Characteristics of Students Who Enrolled and Did Not Enroll for Advanced Study: Both Cohorts

Characteristics	1961 Cohort Ever Enrolled for Advanced Study N	%	1961 Cohort Never Enrolled for Advanced Study N	%	1966 Cohort Ever Enrolled for Advanced Study N	%	1966 Cohort Never Enrolled for Advanced Study N	%
Sex								
Men	229,763	62.7	164,163	51.8	239,207	59.2	515,108	56.9
Women	136.596	37.3	152,510	48.2	164,941	40.8	390,626	43.1
Total	366,359	100.0	316,673	100.0	404,148	100.0	905,734	100.0
Race								
White	231,626	97.3	163,553	97.4	365,685	91.0	810,059	90.6
Black	5,341	2.2	3,603	2.1	19,990	5.0	41,205	4.6
Oriental	604	.3	290	.2	4,090	1.0	6,060	.7
American Indian	119	.1	328	.2	1,695	.4	4,380	.5
Other	331	.1	218	.1	10,350	2.6	32,492	3.6
Total	238,021	100.0	167,992	100.0	401,810	100.0	894,196	100.0
Marital Status								
Single	76,860	21.0	47,313	15.0	224,188	55.5	438,344	48.5
Married (once only)	269,046	73.6	245,980	77.9	169,794	42.1	436,404	48.3
Remarried	7,460	2.0	10,997	3.5	1,829	.5	6,501	.7
Separated, divorced, widowed	12,314	3.4	11,610	3.7	7,902	1.9	22,752	2.5
Total	365,680	100.0	315,900	100.0	403,713	100.0	904,001	100.0
Citizenship								
Native born U.S.A.	362,261	99.0	313,858	99.3	393,988	97.6	886,265	98.1
Naturalized U.S.A.	3,055	.8	1,786	.6	7,698	1.9	13,374	1.5
Emmigrant	358	.1	443	.1	1,360	.3	3,567	.4
Other type Visa	82	.0	26	.0	644	.2	629	.1
Total	365,756	100.0	316,113	100.0	403,690	100.0	903,835	100.0

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Table 15

Reasons for Not Enrolling for Advanced Study by Sex: 1961 and 1966 Cohort
(In Percentages)

	1961 Cohort			1966 Cohort		
Reasons	Total (N=265,656)	Men (N=133,346)	Women (N=132,310)	Total (N=894,449)	Men (N=502,626)	Women (N=391,823)
Never seriously thought about it	26	24	28	15	14	17
Didn't finish undergraduate work	25	26	23	35	37	33
Lacked necessary coursework, grades, etc.	10	12	8	10	12	7
Applied, wasn't accepted	4	5	2	2	2	1
No adequate program where I live(d)	9	8	10	6	4	7
Took a job	45	47	43	44	39	50
Changed my career plans	10	12	9	12	13	12
Decided I did not need a further degree	29	30	27	16	16	15
Wanted to reconsider my goals and interests	17	17	16	27	26	29
Tired of being a student	30	33	27	35	34	36
Home/child care responsibilities	29	14	44	16	9	25
No fellowship (scholarship, grant) offered	4	4	4	4	4	4
Fellowship, etc. terminated	*	1	*	*	*	*
Other financial problems	13	14	13	22	20	23
Spouse discouraged me	3	2	4	2	1	3
Others discouraged me	1	1	1	1	1	2
Other reason	6	8	4	20	25	14

Table 16

Self-Ratings, by Sex: 1961 Cohort
(In Percentages)

Traits on Which Rate Self "Above Average" (Compared With Average Person of Own Age)	Total (N=696,127)	Men (N=399,486)	Women (N=296,642)
Academic ability	57	57	56
Drive to achieve	56	62	48
Leadership ability	47	54	37
Mathematical ability	31	38	22
Mechanical ability	27	36	15
Originality	39	40	36
Popularity	29	31	25
Popularity with opposite sex	23	23	23
Self-confidence (intellectual)	45	51	38
Self-confidence (social)	32	35	28
Understanding of others	58	57	59
Writing ability	33	34	31

Table 17

Primary Activity Past Seven Years: 1961 Cohort
(In Percentages)

Activity	Current Year (1971) (N=603,419)	1970 (N=572,285)	1969 (N=565,935)	1968 (N=566,313)	1967 (N=566,701)	1966 (N=570,103)	1965 (N=576,310)
Working full-time	67	61	60	58	56	52	45
Working part-time	6	7	6	5	4	4	5
In military service, active duty	3	5	8	12	13	13	7
Unemployed, looking for a job	1	2	1	1	1	1	1
Unemployed, not looking for a job	1	1	1	1	1	1	1
Housewife	15	14	12	10	7	5	5
Undergraduate student, full-time	1	2	2	2	3	7	19
Undergraduate student, part-time	*	*	1	1	1	1	2
Graduate student, full-time (including law, thesis work, etc.)	4	5	6	7	10	12	12
Graduate student, part-time (including law, thesis work, etc.)	1	1	1	1	1	1	1
Medical student (including dentistry and veterinary)	*	*	1	2	2	2	2
Medical intern or resident	1	1	1	*	*	-	-
Post-doctoral fellow or traineee	1	1	*	*	*	-	-
Total	100	100	100	100	100	100	100

Table 18

Primary Activity Past Seven Years: 1961 Cohort Men
(In Percentages)

Activity	Current Year (1971) (N=359,670)	1970 (N=335,315)	1969 (N=331,111)	1968 (N=330,169)	1967 (N=332,112)	1966 (N=330,743)	1965 (N=332,446)
Working full-time	80	70	65	58	51	43	34
Working part-time	4	5	4	3	3	4	6
In military service, active duty	5	8	13	18	21	20	12
Unemployed, looking for a job	2	2	1	1	1	1	*
Unemployed, not looking for a job	1	1	1	1	*	*	1
Housewife	1	1	*	*	*	1	1
Undergraduate student, full-time	1	2	3	3	4	9	25
Undergraduate student, part-time	*	*	1	1	1	1	2
Graduate student, full-time (including law, thesis work, etc.)	5	7	8	10	14	17	16
Graduate student, part-time (including law, thesis work, etc.)	1	1	1	1	1	1	1
Medical student (including dentistry and veterinary)	*		1	3	3	3	3
Medical intern or resident	1	2	2	1	*	-	-
Post-doctoral fellow or trainee	1	1	1	*	*	-	-
Total	100	100	100	100	100	100	100

Table 19

Primary Activity Past Seven Years: 1961 Cohort Women

(In Percentages)

Activity	Current Year (1971) (N=243,749)	1970 (N=236,970)	1969 (N=234,823)	1968 (N=236,144)	1967 (N=234,589)	1966 (N=239,361)	1965 (N=243,864)
Working full-time	47	48	52	58	64	65	59
Working part-time	9	10	9	8	6	5	5
In military service, active duty	1	1	2	2	2	2	2
Unemployed, looking for a job	1	1	1	1	1	1	1
Unemployed, not looking for a job	1	2	1	1	1	1	1
Housewife	37	32	28	23	17	12	11
Undergraduate student, full-time	1	1	1	1	2	4	11
Undergraduate student, part-time	*	*	1	1	1	1	2
Graduate student, full-time (including law, thesis work, etc.)	2	3	3	4	5	6	8
Graduate student, part-time (including law, thesis work, etc.)	1	1	2	2	1	1	1
Medical student (including dentistry and veterinary)	*	*	*	1	1	1	1
Medical intern or resident	*	*	*	*	*	–	–
Post doctoral fellow or trainee	*	*	*	*	*	–	–
Total	100	100	100	100	100	100	100

Table 20

Chronology of Educational Progress Total Both Cohorts

(In Percentages)

Events	Number of Years After Matriculation Event Occurred											
	Never	Two	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Total	Number
1961 Freshmen												
Received a bachelor's degree	20	1	5	50	14	4	2	2	2	1	100	675,434
First enrolled for graduate or professional study	43	1	3	19	12	7	5	5	4	3	100	618,293
Received a master's degree	74	–	–	1	3	6	5	4	4	4	100	577,503
Received a doctorate	96	–	–	–	–	*	1	1	1	1	100	551,1[illegible]4
Received a professional degree	92	–	–	–	–	1	3	2	1	1	100	553,303
1966 Freshmen												
Received a bachelor's degree	38	*	3	46	13	–	–	–	–	–	100	1,271,684
First enrolled for graduate or professional study	71	*	1	15	12	–	–	–	–	–	100	1,139,570
Received a master's degree	97	–	–	*	3	–	–	–	–	–	100	1,090,750

Table 21

Chronology of Educational Progress: Both Cohorts Men
(In Percentages)

Events	Number of Years After Matriculation Event Occurred											
	Never	Two	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Total	Number
1961 Freshmen												
Received a bachelor's degree	18	1	3	46	19	6	3	2	2	1	100	389,869
First enrolled for graduate or professional study	39	1	2	22	12	6	5	5	5	3	100	362,925
Received a master's degree	71	-	-	1	3	7	5	4	5	5	100	336,090
Received a doctorate	94	-	-	-	-	*	1	1	2	2	100	319,629
Received a professional degree	89	-	-	-	-	1	4	4	1	1	100	323,691
1966 Freshmen												
Received a bachelor's degree	40	*	2	43	15	-	-	-	-	-	100	732,246
First enrolled for graduate or professional study	71	*	2	16	11	-	-	-	-	-	100	663,807
Received a master's degree	97	-	-	*	3	-	-	-	-	-	100	634,956

Table 22

Chronology of Educational Progress: Both Cohorts Women
(In Percentages)

Events	Number of Years After Matriculation Event Occurred											
	Never	Two	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Total	Number
1961 Freshmen												
Received a bachelor's degree	22	2	7	55	8	2	1	1	1	1	100	285,565
First enrolled for graduate or professional study	49	1	3	15	11	7	5	4	3	3	100	255,368
Received a master's degree	77	-	-	1	3	4	4	4	4	4	100	241,413
Received a doctorate	98	-	-	-	-	*	*	*	1	1	100	231,475
Received a professional degree	97	-	-	-	-	1	1	1	1	*	100	299,612
1966 Freshmen												
Received a bachelor's degree	35	1	4	51	10	-	-	-	-	-	100	539,438
First enrolled for graduate or professional study	71	1	1	15	13	-	-	-	-	-	100	475,763
Received a master's degree	97	-	-	*	3	-	-	-	-	-	100	455,793

Table 23

Chronology of Educational Progress: 1961 and 1966 Freshmen Who Ever Enrolled for Advanced Study
(In Percentages)

Events	Number of Years After Matriculation Event Occurred											
	Never	Two	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Total	Number
1961 Freshmen												
Received a bachelor's degree	-	2	7	65	16	5	2	2	1	1	100	345,744
First enrolled for graduate or professional study	-	1	4	33	21	11	9	8	7	5	100	344,322
Transferred/graduate school	81	*	*	1	3	4	3	3	3	2	100	296,775
Received a master's degree	51	-	-	1	6	11	9	7	8	8	100	305,248
Received a doctorate	92	-	-	-	-	*	1	2	2	3	100	279,319
Received a professional degree	86	-	-	-	-	2	5	4	2	1	100	282,223
Changed graduate major	89	*	*	1	1	2	1	2	2	2	100	282,662
Took internship (health field majors only)	45	-	-	-	-	2	5	22	19	7	100	19,951
Took residency (health field majors only)	56	-	-	-	-	-	2	4	18	19	100	19,478
1966 Freshmen												
Received a bachelor's degree	-	2	7	79	12	-	-	-	-	-	100	338,915
First enrolled for graduate or professional study	-	2	5	53	41	-	-	-	-	-	100	328,931
Transferred/graduate school	94	*	*	1	5	-	-	-	-	-	100	302,990
Received a master's degree	88	-	-	1	11	-		-	-	-	100	297,092

Table 24

Undergraduate Attrition Patterns, by Sex:
1961 and 1966 Freshmen Who Ended Their Undergraduate Studies With No Degree
(In Percentages)

Year Undergraduate Studies Ended With No Degree	1961 Cohort			1966 Cohort		
	Total	Men	Women	Total	Men	Women
	N	N	N	N	N	N
Year of matriculation	2,287	1,072	1,215	5,837	2,294	3,543
One year later	8,877	3,549	5,328	18,947	8,991	9,956
Two years later	11,597	3,501	8,096	25,319	11,908	13,411
Three years later	6,994	3,660	3,334	21,781	9,909	11,872
Four years later	5,258	2,844	2,414	13,154	8,907	4,247
Five years later	4,650	3,673	977	8,834	5,657	3,177
Six or more years later	4,362	3,156	1,206	-	-	-
Total	44,025	21,455	22,570	93,872	47,666	46,206
	%	%	%	%	%	%
Year of matriculation	5	5	5	6	5	8
One year later	20	17	24	20	19	22
Two years later	26	16	36	27	25	29
Three years later	16	17	15	23	21	26
Four years later	12	13	11	14	19	9
Five years later	11	17	4	9	12	7
Six or more years later	10	15	5	-	-	-
Total	100	100	100	100	100	100

Table 25

Year of First Marriage, by Sex and Advanced Study Enrollment: Both Cohorts
(In Percentages)

	1961 Cohort				1966 Cohort			
Year First Married	Total (N=103,803)	Men (N=67,025)	Women (N=36,778)	Total Ever Enrolled for Advanced Study (N=348,403)	Total (N=1,286,566)	Men (N=739,665)	Women (N=546,901)	Total Ever Enrolled for Advanced Study (N=365,590)
Never	15	17	13	18	47	53	40	52
Before matriculation	1	1	1	1	2	2	3	2
Year of matriculation	1	1	2	1	1	1	1	1
One year later	4	3	5	2	4	3	6	3
Two years later	7	5	10	4	8	6	11	5
Three years later	10	9	12	7	12	11	13	10
Four years later	18	16	21	18	15	14	17	16
Five years later	14	14	14	15	10	11	10	12
Six years later	10	11	9	12	-	-	-	-
Seven years later	8	9	6	9	-	-	-	-
Eight years later	6	7	4	7	-	-	-	-
Nine years later	4	5	2	4	-	-	-	-
Ten years later	3	4	2	3	-	-	-	-
Total	100	100	100	100	100	100	100	100

Table 26

Undergraduate Major, by Sex: Both Cohorts
(In Percentages)

Major	1961 Cohort Total (N=571,916)	1961 Cohort Men (N=333,480)	1961 Cohort Women (N=238,436)	1966 Cohort Total (N=1,160,874)	1966 Cohort Men (N=670,987)	1966 Cohort Women (N=489,886)
Biological Sciences	5	6	4	5	6	4
Health fields	5	3	8	5	2	10
Physical sciences and mathematics	10	12	7	6	8	7
Social sciences	13	14	10	14	15	14
Law	*	1	*	*	1	*
Education	11	4	21	10	3	20
Engineering	8	12	2	8	14	*
Arts and humanities	20	16	26	20	15	27
Business	14	18	9	16	22	8
Other fields	13	13	13	15	15	15
Total	100	100	100	100	100	100

Table 27

Number and Percent With Undergraduate Majors in Health Fields, by Sex: Both Cohorts

Major	1961 Cohort Total	1961 Cohort Men	1961 Cohort Women	1966 Cohort Total	1966 Cohort Men	1966 Cohort Women
	N	N	N	N	N	N
Health technology	2,950	371	2,579	9,849	1,797	8,052
Nursing	9,902	448	9,454	26,426	77	25,649
Pharmacy	4,482	3,483	999	4,249	2,995	1,254
Pre-dentistry	1,803	1,626	177	2,288	1,895	393
Pre-medicine	4,261	3,456	805	6,175	5,405	770
Pre-veterinary	1,089	867	222	2,384	2,120	264
Therapy	4,331	693	3,638	11,781	1,420	10,361
Total	28,818	10,944	17,874	63,152	16,409	46,743
	%	%	%	%	%	%
Health technology	10.3	3.4	14.5	15.6	11.0	1[illegible].3
Nursing	34.4	4.1	52.9	41.9	4.8	54.9
Pharmacy	15.6	31.9	5.6	6.8	18.3	2.7
Pre-dentistry	6.3	14.9	1.0	3.7	11.6	1.0
Pre-medicine	14.8	31.6	4.6	9.8	33.0	1.7
Pre-veterinary	3.8	8.0	1.3	3.8	13.0	1.0
Therapy	15.1	[illegible]	20.4	18.7	8.7	22.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table 28

Undergraduate Major by Race: Both Cohorts
(In Percentages)

Major	1961 Cohort Total White (N=346,334)	1961 Cohort Total Black (N=7,325)	1966 Cohort Total White (N=1,059,724)	1966 Cohort Total Black (N=47,605)	1966 Cohort Black Men (N=21,959)	1966 Cohort Black Women (N=25,647)	1966 Cohort Total Oriental (N=7,317)	1966 Cohort Total Am. Indian (N=4,922)
Biological sciences	5	6	5	3	4	3	14	0
Health fields	5	1	5	9	3	13	4	2
Physical sciences and mathematics	11	13	6	5	4	6	13	0
Social sciences	13	17	14	19	20	18	14	26
Law	*	0	*	*	1	0	0	0
Education	11	18	10	11	8	13	4	2
Engineering	8	1	8	3	6	0	13	8
Arts and humanities	20	27	21	18	15	20	16	25
Business	14	5	16	19	22	17	6	24
Other fields	13	13	15	14	17	11	16	13
Total	100	100	100	100	100	100	100	100

Table 29

Undergraduate Major, by Advanced Study Index Totals: Both Cohorts
(In Percentages)

Undergraduate Major	1961 Cohort Ever Enrolled For Advanced Study (N=336,449)	1961 Cohort Never Enrolled For Advanced Study (N=222,065)	1966 Cohort Ever Ernolled For Advanced Study (N=368,373)	1966 Cohort Never Enrolled For Advanced Study (N=739,139)
Biological sciences	7	3	7	3
Health fields	4	6	5	6
Physical sciences and mathematics	12	8	8	6
Social sciences	14	10	17	13
Law	*	*	1	*
Education	12	11	11	9
Engineering	8	8	6	9
Arts and humanities	22	17	22	19
Business	9	22	9	19
Other fields	13	14	14	15
Total	100	100	100	100

Table 30

Undergraduate Major by Degree Status and Study Plans: 1961 Freshmen
Who Never Enrolled for Advanced Study
(In Percentages)

	Plan Advanced Study		Do Not Plan Advanced Study	
Undergraduate Major	Hold Bachelor's (N=72,737)	Do Not Hold Bachelor's (N=18,215)	Hold Bachelor's (N=85,123)	Do Not Hold Bachelor's (N=45,990
Biological sciences	3	7	2	3
Health fields	4	10	6	9
Physical sciences and mathematics	9	7	7	9
Social sciences	13	10	11	5
Law	*	0	0	1
Education	15	8	10	9
Engineering	8	8	8	7
Arts and humanities	21	15	15	16
Business	15	20	26	24
Other fields	13	15	13	19
Total	100	100	100	100

Table 31

Undergraduate Major, by Degree Status and Study Plans: 1966 Freshmen
Who Never Enrolled for Advanced Study
(In Percentages)

	Plan Advanced Study		Do Not Plan Advanced Study	
Undergraduate Major	Hold Bachelor's (N=301,610)	Do Not Hold Bachelor's (N=163,645)	Hold Bachelor's (N=107,762)	Do Not Hold Bachelor's (N=166,121)
Biological sciences	3	4	3	3
Health fields	4	8	6	6
Physical sciences and mathematics	5	7	5	5
Social sciences	16	15	13	7
Law	*	1	0	1
Education	13	7	8	7
Engineering	8	9	5	12
Arts and humanities	21	19	18	18
Business	15	17	26	24
Other fields	15	13	15	17
Total	100	100	100	100

Table 32

Undergraduate Credit Hours Completed, by Field: Total Both Cohorts
(In Percentages)

Number of Credit Hours Completed	Physical Sciences	Biological Sciences	Math	Social Sciences	Arts and Humanities	Education	Engineering
			1961 Cohort	(N=705,512)			
None or not checked	24	35	26	15	16	54	85
1 - 4	17	17	19	8	8	8	3
5 - 9	23	22	22	15	14	5	2
9 - 15	16	12	16	23	19	6	2
16 - 27	10	6	10	16	15	12	1
More than 27	11	7	8	23	28	14	6
Total	100	100	100	100	100	100	100
			1966 Cohort	(N=1,390,524)			
None or not checked	24	34	25	12	14	56	85
1 - 4	21	21	20	9	10	11	4
5 - 8	25	23	24	15	16	7	2
9 - 15	15	11	17	25	21	7	2
16 - 27	9	5	8	16	16	10	1
More than 27	7	6	5	22	24	10	7
Total	100	100	100	100	100	100	100

Table 33

Undergraduate Grade Point Average, Selected Subgroups: 1961 Cohort
(In Percentages)

Subgroup	Number	A or A+	A- or B+	B	B- or C+	C or less	Total
Total,	690,986	2	13	29	35	20	100
All men	398,144	2	10	26	39	24	100
All Women	292,841	3	18	33	31	15	100
Total, never enrolled for advanced study:	306,949	1	9	23	36	31	100
Plan advanced study/hold bachelor's degree	88,929	1	10	26	46	17	100
Plan advanced study/do not hold bachelor's degree	24,469	1	10	19	31	39	100
Do not plan advanced study/hold bachelor's degree	106,143	2	10	27	39	23	100
Do not plan advanced study/do not hold bachelor's degree	87,288	1	5	17	25	52	100
Total, ever enrolled for advanced study:	363,323	3	18	34	35	11	100
Currently enrolled	26,829	6	19	34	31	11	100
Interrupted studies/hold no advanced degree	105,223	2	13	33	40	14	100
Interruped studies/hold master's degree	43,954	3	19	37	34	8	100
Completed studies/hold Ph.D. or professional degree	55,661	7	29	36	22	6	100
Completed studies/hold master's degree	85,233	3	18	37	35	7	100
Completed studies/hold no advanced degree	46,423	1	12	26	42	19	100
Total ever enrolled in:							
Biological sciences	11,750	2	23	38	28	8	100
Physical sciences and mathematics	21,375	10	29	31	25	6	100
Health fields	23,394	5	25	43	23	4	100
Social sciences	21,919	4	23	35	30	8	100
Other fields	218,908	3	17	34	36	11	100

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Table 34

Undergraduate Grade Point Average, Selected Subgroups: 1966 Cohort
(In Percentages)

Subgroup	Number	A or A+	A- or B+	B	B- or C+	C or less	Total
Total	1,366,086	2	14	29	32	23	100
All men	789,951	2	11	25	25	28	100
All women	576,135	3	19	34	29	16	100
Total, never enrolled for advanced study:	888,224	1	11	26	35	28	100
Plan advanced study/hold bachelor's degree	333,507	1	14	34	40	10	100
Plan advanced study/do not hold bachelor's	197,363	2	7	22	31	38	100
Do not plan advanced study/hold bachelor's	120,803	2	11	32	41	15	100
Do not plan advanced study/do not hold bachelor's	236,550	1	8	14	26	51	100
Total, ever enrolled for advanced study:	401,862	4	23	36	27	9	100
Currently enrolled	242,409	5	27	39	26	4	100
Interruped studies/hold no advanced degree	78,331	2	16	36	33	13	100
Interruped studies/hold master's degree	10,993	7	33	40	19	2	100
Completed studies/hold master's degree	16,883	4	36	39	18	3	100
Completed studies/hold no advanced degree	53,245	1	11	24	31	33	100
Total, ever enrolled in:							
Biological sciences	11,111	6	25	40	23	5	100
Physical sciences and mathematics	17,775	12	32	36	17	4	100
Health fields	37,637	5	34	40	15	6	100
Social sciences	23,543	6	28	37	27	2	100
Other fields	233,715	4	24	39	29	5	100

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Table 35

Number and Percent Currently Employed, Selected Subgroups: Both Cohorts

	1961 Cohort			1966 Cohort		
Subgroup	Total Number in Subgroup	Number Who Checked Full-Time or Part-Time Employment as Their Primary Current Activity	Percent of Subgroup	Total Number in Subgroup [a]	Number Who Checked Full-Time or Part-Time Employment as One of Their Current Activities	Percent of Subgroup
Total	705,512	438,114	62.1	1,390,524	975,559	70.2
Men	405,281	301,955	74.5	803,597	546,327	68.0
Women	300,231	136,159	45.4	586,927	429,231	73.2
Black	9,203	6,153	66.9	69,363	51,895	74.9
Oriental	-	-	-	10,494	7,753	73.9
American Indian	-	-	-	7,014	3,470	49.5
Total, never enrolled for advanced study	316,673	193,170	61.0	905,734	659,858	72.9
Plan advanced study/hold bachelor's degree	89,281	55,527	62.2	335,372	265,234	79.1
Plan advanced study/do not hold bachelor's degree	25,588	10,452	40.9	202,411	126,121	62.3
Do not plan advanced study/ hold bachelor's degree	107,023	70,436	65.9	121,282	99,397	82.0
Do not plan advanced study/ do not hold bachelor's degree	94,781	56,756	59.9	246,669	169,106	68.6
Total, ever enrolled for advanced study	366,359	232,862	63.6	404,148	261,019	64.6
Currently enrolled	27,209	a	b	243,024	135,850	55.9
Interrupted studies with no advanced degree	105,933	62,515	59.1	78,702	60,869	77.4
Interrupted studies with a master's degree	44,460	32,170	72.4	11,084	9,306	84.0
Completed studies with a Ph.D. or professional degree	55,969	38,804	69.4	-	-	-
Completed studies with a master's degree	85,598	66,963	78.3	16,910	14,155	83.7
Completed studies with no advanced degree	47,189	32,410	68.7	54,429	40,839	75.1
Total, ever enrolled in:						
Biological sciences	11,789	5,192	44.1	11,278	5,335	47.3
Physical sciences and mathematics	21,569	13,802	64.0	17,788	9,440	53.1
Health fields	23,546	8,390	35.7	37,821	13,017	34.5
Social sciences	21,948	13,746	62.7	23,565	14,136	60.0
Other fields	220,654	146,813	66.6	234,115	161,239	68.9
Total, hold Ph.D. or professional degree in:						
Biological sciences	2,926	1,750	59.8	-	-	-
Physical sciences and math	5,391	4,128	76.6	-	-	-
Health fields	16,674	5,624	33.8	-	-	-
Social sciences	3,524	2,984	84.7	-	-	-
Other fields	27,156	24,050	88.6	-	-	-

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[a] The percentages on this table are based on the total cohort and do not correct for nonresponse. See Tables 6 & 7 for percentages based on respondents to the question.

[b] Only one current activity was checked on the 1961 form.

Table 36

Years of Full-Time Employment Since 1965: Selected Subgroups: 1961 Cohort
(In Percentages)

Subgroup	Number	None	One or Less	Two	Three	Four	Five or More	Total
Total	662,732	5	5	9	13	15	53	100
Men	382,307	2	4	7	12	15	60	100
Women	280,425	9	7	11	14	15	43	100
Black Men	2,340	10	*	16	13	15	47	100
Black Women	6,223	1	1	8	15	13	62	100
Never enrolled for advanced study	301,063	7	6	7	10	12	58	100
Total, ever enrolled for advanced study	342,506	4	5	10	15	18	49	100
Biological sciences	11,224	13	12	12	21	12	29	100
Physical sciences and math	19,962	10	11	15	10	14	41	100
Health fields	21,587	5	9	26	28	14	19	100
Social sciences	20,909	5	9	17	14	21	34	100
Other fields	206,399	3	3	8	15	18	53	100
Total, completed studies with a Ph.D. or professional degree	52,883	3	12	27	33	14	11	100
Biological sciences	2,789	6	35	31	12	5	12	100
Physical sciences and math	4,981	8	24	41	16	4	8	100
Health fields	15,279	4	11	34	32	9	12	100
Social sciences	3,364	3	17	44	20	11	4	100
Other fields	26,223	2	7	18	41	21	12	100

Table 37[a]

Current Occupation by Sex: Total Both Cohorts
(In Percentages)

Occupations	1961 Cohort			1966 Cohort		
	Total (N=429,219)	Men (N=295,287)	Women (N=133,932)	Total (N=947,225)	Men (N=529,588)	Women (N=417,637)
Physician/dentist	1	2	1	-	-	-
Allied health	4	2	7	5	1	10
Physical scientist	2	2	1	*	1	*
Biological scientist	*	*	*	*	*	*
Social scientist	1	*	1	*	*	*
Businessman	22	28	9	12	19	4
Lawyer	4	5	2	*	*	*
Engineer	6	9	1	3	6	*
Teacher (elementary)	7	2	17	11	3	21
Educator (secondary)	14	12	18	10	8	13
College or university teacher	4	4	5	1	1	1
Other professional	6	6	6	4	4	3
Housewife	*	*	1	1	-	2
All other choices	30	29	32	52	56	47
None	*	*	0	*	1	*
Total	100	100	100	100	100	100

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[a] Base for the 1961 figures comprises respondents who gave full-time or part-time employment as their primary current activity; base for the 1966 figures comprises respondents who gave full-time or part-time employment as one of their current activities.

Table 38[a]

Current Occupation, by Race: Both Cohorts
(In Percentages)

Occupation	1961 Cohort White (N=247,525)	1961 Cohort Black (N=5,788)	1966 Cohort White (N=848,182)	1966 Cohort Black (N=47,908)	1966 Cohort Oriental (N=7,385)	1966 Cohort American Indian (N=3,470)
Physician/dentist	2	*	-	-	-	-
Allied health	4	4	5	5	2	5
Physical scientist	2	2	*	*	1	0
Biological scientist	*	0	*	*	0	[illegible]
Social scientist	1	0	*	*	0	0
Businessman	20	16	13	8	8	2
Lawyer	4	*	*	0	0	0
Engineer	7	1	4	1	3	0
Teacher (elementary)	7	24	11	12	8	12
Educator (secondary)	15	13	10	12	3	9
College or university teacher	5	9	1	1	1	0
Other professional	7	2	4	4	2	9
Housewife	*	3	1	*	0	12
All other choices	27	27	51	56	71	52
None	*	0	1	*	1	0
Total	100	100	100	100	100	100

Table 39[a]

Current Occupation, by Degree Status and Study Plans:
1961 Freshmen Who Never Enrolled for Advanced Study
(In Percentages)

	Total Never Enrolled for Advanced Study (N=189,140)	Plan Advanced Study: Hold Bachelor's Degree (N=54,635)	Plan Advanced Study: Do Not Hold Bachelor's Degree (N=10,097)	Do Not Plan Advanced Study: Hold Bachelor's Degree (N=60,269)	Do Not Plan Advanced Study: Do Not Hold Bachelor's Degree (N=55,140)
Allied health	4	4	5	5	3
Physical scientist	1	1	0	1	1
Biological scientist	*	*	0	*	0
Social scientist	*	*	0	0	*
Businessman	32	26	21	40	29
Engineer	6	8	7	8	3
Teacher (elementary)	4	1	1	4	*
Educator (secondary)	5	14	*	3	0
College or university teacher	*	1	0	*	0
Other professional	5	7	7	5	2
Housewife	1	*	3	1	1
All other choices	41	29	55	33	61
None	*	*	*	*	0
Total	100	100	100	100	100

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[a] Base for the 1961 figures comprises respondents who gave full-time or part-time employment as their primary current activity; base for the 1966 figures comprises respondents who gave full-time or part-time employment as one of their current activities.

Table 40[a]

Current Occupation, by Degree Status and Study Plans:
1966 Freshmen Who Never Enrolled for Advanced Study
(In Percentages)

Occupation	Total Never Enrolled for Advanced Study (N=645,765)	Plan Advanced Study: Hold Bachelor's Degree (N=260,9[illegible]8)	Plan Advanced Study: Do Not Hold Bachelor's Degree (N=122,496)	Do Not Plan Advanced Study: Hold Bachelor's Degree (N=98,161)	Do Not Plan Advanced Study: Do Not Hold Bachelor's Degree (N=164,190)
Allied health	5	5	5	7	3
Physical scientist	*	1	*	*	*
Biological scientist	*	*	0	*	*
Social scientist	0	*	*	0	0
Businessman	14	12	13	22	12
Lawyer	0	0	0	0	0
Engineer	4	5	2	*	3
Teacher (elementary)	8	16	1	7	*
Educator (secondary)	8	17	1	5	*
College or university teacher	*	*	*	*	*
Other professional	4	3	4	5	3
Housewife	1	*	2	*	2
All other choices	57	40	71	49	77
Undecided or none	*	*	1	*	*
Total	100	100	100	100	100

Table 41[a]

Current Occupation, by Advanced Study Index:
1961 Freshmen Who Interrupted or Completed Their Advanced Studies
and 1966 Freshmen Who Were Currently Enrolled
(In Percentages)

Occupation	1966 Cohort: Currently Enrolled (N=25[illegible],[illegible]70)	1961 Cohort: Interrupted Studies: Hold No Advanced Degree (N=61,842)	1961 Cohort: Interrupted Studies: Hold Master's Degree (N=31,320)	1961 Cohort: Completed Studies: Hold Ph.D. or Professional Degree (N=38,225)	1961 Cohort: Completed Studies: Hold Master's Degree (N=65,742)	1961 Cohort: Completed Studies: Hold No Advanced Degree (N=31,317)
Physician/dentist	0	0	0	14	0	0
Allied health	5	2	3	*	2	9
Physical scientist	1	2	1	6	1	1
Biological scientist	*	*	1	2	*	*
Social scientist	*	*	2	2	1	*
Businessman	10	15	10	5	17	23
Lawyer	*	0	0	39	*	*
Engineer	3	6	4	4	8	6
Teacher (elementary)	18	13	5	*	12	10
Educator (secondary)	19	32	32	1	26	11
College or university teacher	4	1	19	20	5	0
Other professional	4	8	4	2	9	5
Housewife	*	*	*	0	*	*
All other choices	36	20	18	5	19	36
Total	100	100	100	100	100	100

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[a] Base for the 1961 figures comprises respondents who gave full-time or part-time employment as their primary current activity; base for the 1966 figures comprises respondents who gave full-time or part-time employment as one of their current activities.

Table 42[a]

Current Occupation, by Graduate Field: 1961 Freshmen
Who Ever Enrolled for Advanced Study
(In Percentages)

Occupation	Biological Sciences (N=5,132)	Physical Sciences and Mathematics (N=13,783)	Health Fields (N=8,259)	Social Sciences (N=13,451)	Other Fields (N=144,670)
Physician/dentist	0	0	66	0	0
Allied health	2	1	26	0	1
Physical scientist	1	28	*	*	*
Biological scientist	21	0	1	*	*
Social scientist	0	0	0	14	*
Businessman	3	3	1	14	15
Lawyer	0	0	*	1	10
Engineer	0	3	*	0	8
Teacher (elementary)	*	2	0	3	10
Educator (secondary)	25	29	*	14	25
College or university teacher	26	15	4	22	7
Other professional	2	11	*	3	7
Housewife	0	0	0	*	*
All other choices	20	9	2	29	17
Total	100	100	100	100	

Table 43[a]

Current Occupation, by Graduate Field: 1966 Freshmen
Who Ever Enrolled for Advanced Study
(In Percentages)

Occupation	Biological Sciences (N=5,289)	Physical Sciences and Mathematics (N=9,274)	Health Fields (N=12,180)	Social Sciences (N=13,860)	Other Fields (N=156,792)
Allied health	9	0	40	1	1
Physical scientist	0	7	0	0	*
Biological scientist	6	0	1	0	*
Social scientist	0	0	*	3	*
Businessman	7	1	4	16	8
Lawyer	0	0	0	0	*
Engineer	*	2	1	1	4
Teacher (elementary)	0	3	2	13	23
Educator (secondary)	19	38	3	12	23
College or university teacher	20	18	3	4	3
Other professional	0	4	*	2	5
Housewife	0	0	0	*	0
All other choices	38	24	44	47	30
None	1	3	2	2	1
Total	100	100	100	100	100

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[a] Base for the 1961 figures comprises respondents who gave full-time or part-time employment as their primary current activity; base for the 1966 figures comprises respondents who gave full-time or part-time employment as one of their current activities.

Table 44[a]

Current Employer, by Sex: Both Cohorts
(In Percentages)

Employer	1961 Cohort Total (N=429,403)	1961 Cohort Men (N=295,694)	1961 Cohort Women (N=133,709)	1966 Cohort Total (N=957,469)	1966 Cohort Men (N=535,030)	1966 Cohort Women (N=422,439)
Hospital, clinic	3	2	6	5	2	8
Medical group practice	*	*	1	1	*	2
Professional school	1	1	1	1	1	1
College or university	7	6	9	6	6	6
Elementary or secondary education	21	15	36	21	10	35
Self-employed (partnership)	11	13	5	5	7	3
Research organization or institute	2	2	1	2	2	1
Church, welfare or other nonprofit organization (excluding research)	3	2	5	2	2	3
Private company	36	43	21	37	47	25
Government and military	12	12	10	13	16	11
Not applicable	*	*	1	*	*	1
Other	4	4	4	7	8	5
Total	100	100	100	100	100	100

Table 45[a]

Current Employer, by Race: Both Cohorts
(In Percentages)

Employer	1961 Cohort Total White (N=2[illegible]3,083)	1961 Cohort Total Black (N=5,870)	1966 Cohort Total White (N=856,343)	1966 Cohort Total Black (N=49,382)	1966 Cohort Black Men (N=21,557)	1966 Cohort Black Women (N=27,825)	1966 Cohort Total Oriental (N=7,720)	1966 Cohort Total American (N=3,470)
Hospital, clinic	3	1	5	4	1	7	4	2
Medical group practice	1	0	1	*	0	*	0	0
Professional school	1	4	1	2	3	1	*	1
College or university	8	9	6	6	5	6	14	4
Elementary or secondary education	22	36	21	25	14	33	11	24
Self-employed (partnership)	10	1	6	1	2	1	3	7
Research organization or institute	2	3	2	1	1	1	1	0
Church, welfare or other nonprofit organization (excluding research)	3	3	2	5	8	3	1	0
Private company	35	21	37	25	32	21	36	52
Government and military	11	21	13	24	29	20	20	8
None	*	0	*	*	0	1	0	C
Other	4	0	7	6	7	4	9	2
Total	100	100	100	100	100	100	100	100

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[a] Base for the 1961 figures comprises respondents who gave full-time or part-time employment as their primary current activity; base for the 1966 figures comprises respondents who gave full-time or part-time employment as one of their current activities.

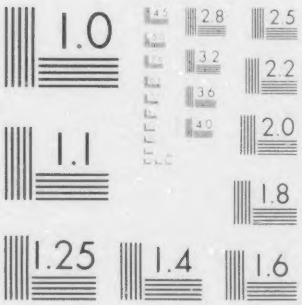
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Table 48[a]

Current Employer, by Graduate Field: 1961 Freshmen Who Received a Ph.D. or Professional Degree

(In Percentages)

Employer	Biological Sciences (N=1,750)	Physical Sciences and Math (N=4,079)	Health Fields (N=5,511)	Social Sciences (N=2,984)	Other Fields (N=23,776)
Hospital, clinic	2	0	14	11	*
Medical group practice	0	0	13	0	0
Professional school	9	1	2	1	2
College or university	78	46	5	70	16
Elementary or secondary education	0	3	0	2	1
Self-employed (partnership)	0	*	59	1	32
Research organization or institute	6	24	1	1	4
Church, welfare or other nonprofit organization (excluding research)	0	0	1	2	1
Private company	2	18	1	5	24
Government and military	3	7	5	8	16
Other	0	1	0	1	5
Total	100	100	100	100	100

Table 49[a]

Current Employment Activities by Sex: Both Cohorts

(In Percentages)

Current Activities Involving 40 Percent or More of Time	1961 Cohort			1966 Cohort		
	Total (N=438,114)	Men (N=301,955)	Women (N=136,159)	Total (N=975,559)	Men (N=546,327)	Women (N=429,231)
Administrative or managerial duties	25	29	16	16	21	11
Teaching	26	19	42	25	14	40
Research (or development)	9	10	7	8	9	6
Consulting	8	8	8	8	8	7
Service to patients or clients	25	24	26	26	22	31
Clerical-secretarial	4	2	11	14	5	25
Sales, promotion, public relations, advertising	13	15	8	12	14	9
Operations	17	21	8	19	28	8
Writing, editing	8	8	7	7	7	7
Other	4	4	3	7	9	5

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[a] Base for the 1961 figures comprises respondents who gave full-time or part-time employment as their primary current activity; base for the 1966 figures comprises respondents who gave full-time or part-time employment as one of their current activities.

Table 50[a]

Current Employment Activities by Selected Race: Both Cohorts

Current Activities Involving 40 Percent or More of Time	1961 Cohort		1966 Cohort					
	Total White (N=251,878)	Total Black (N=6,153)	Total White (N=870,099)	Total Black (N=51,895)	Black Men (N=22,702)	Black Women (N=29,193)	Total Oriental (N=7,753)	Total American Indian (N=3,470)
Administrative or managerial duties	24	14	17	13	18	9	10	20
Teaching	28	46	26	29	17	38	24	37
Research (or development)	11	6	8	10	14	6	3	12
Consulting	8	9	7	9	12	8	2	13
Service to patients or clinics	26	22	26	28	28	27	18	28
Clerical-secretarial	4	12	14	16	5	25	28	13
Sales, promotion, public relat ions, advertising	11	3	12	10	15	5	9	31
Operations	15	13	19	21	27	11	14	10
Writing, editing	7	17	6	11	11	11	3	11
Other	3	6	7	9	11	8	16	9

Table 51[a]

Current Employment Activities, by Graduate Field: 1961 and 1966 Freshmen
Who Ever Enrolled for Advanced Study
(In Percentages)

Current Activities Involving 40 Percent or More of Time	Biological Sciences	Physical Sciences and Math	Health Fields	Social Sciences	Other Fields
	1961 Cohort				
Administrative duties	11	6	12	23	21
Teaching	50	48	22	36	39
Research (or development)	38	35	2	18	10
Consulting	2	6	12	8	10
Service to patients or clients	7	7	84	27	25
Clerical-secretarial	*	1	*	4	2
Sales, promotion, public relations, advertising	3	3	1	9	6
Operations	13	11	2	5	8
Writing, editing	8	6	1	10	9
Other	3	3	1	5	3
Base N	5,192	13,802	8,390	13,746	146,813
	1966 Cohort				
Administrative duties	2	9	7	18	13
Teaching	42	66	25	29	51
Research (or development)	29	15	8	12	10
Consulting	2	4	10	8	8
Service to patients or clients	17	9	48	31	19
Clerical-secretarial	8	3	5	10	8
Sales, promotion, public relations, advertising	11	2	7	10	6
Operations	14	10	10	13	10
Writing, editing	4	4	2	8	8
Other	1	3	6	5	5

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[a] Base for the 1961 figures comprises respondents who gave full-time or part-time employment as their primary current activity; base for the 1966 figures comprises respondents who gave full-time or part-time employment as one of their current activities.

Table 52[a]

Current Employment Activities, by Graduate Field: 1961 Freshmen Who Received a Ph.D. or Professional Degree
(In Percentages)

Current Activities Involving 40 Percent Or More of Time	Biological Sciences (N=1,750)	Physical Sciences and Math (N=4,128)	Health Fields (N=5,624)	Social Sciences (N=2,984)	Other Fields (N=24,050)
Administrative or managerial duties	12	6	11	3	11
Teaching	66	44	9	59	13
Research (or development)	55	60	2	37	18
Consulting	2	1	11	4	18
Service to patients or clients	2	1	96	25	55
Clerical-secretarial	0	0	0	0	1
Sales, promotion, public relations, advertising	0	0	1	*	3
Operations	1	2	2	2	3
Writing, editing	4	6	*	8	16
Other	7	*	*	1	3

Table 53[a]

Number and Percent Currently Involved in Research or Development, by Graduate Field: 1961 Freshmen Who Ever Enrolled for Advanced Study

Amount of Involvement in Research or Development	Biological Sciences	Physical Sciences and Math	Health Fields	Social Sciences	Other Fields
	N	N	N	N	N
40 percent or more of time	1,958	4,763	161	2,484	14,891
Less than 40 percent of time	1,587	3,949	2,605	5,095	37,600
None	1,647	5,059	5,624	6,167	94,233
Total	5,192	13,771	8,390	13,746	146,724
	%	%	%	%	%
40 percent or more of time	38	35	2	18	10
Less than 40 percent of time	31	29	31	37	26
None	32	37	67	45	64
Total	100	100	100	100	100

[a] Base for the 1961 figures comprises respondents who gave full-time or part-time employment as their primary current activity; base for the 1966 figures comprises respondents who gave full-time employment as one of their current activities.

Table 54[a]

Characteristics of Current Job, by Sex: Both Cohorts
(In Percentages)

Characteristics	1961 Cohort Total (N=438,114)	1961 Cohort Men (N=301,955)	1961 Cohort Women (N=136,159)	1966 Cohort Total (N=975,559)	1966 Cohort Men (N=546,327)	1966 Cohort Women (N=429,231)
Position is full-time	92	96	85	81	80	82
Supervise two or more persons	43	47	34	32	33	31
Fits in with own long-range goals	76	78	72	57	56	59
Offers good chances for advancement	57	66	39	42	50	32
Feel discrimination against self on advancement, conditions; etc.	12	10	15	13	11	15
Would like to remain on this job longer	69	71	65	49	46	53
Took this job after a difficult job search	16	17	14	27	26	28
Working for a salary considerably lower than own qualifications would deserve	23	22	25	36	35	36
At first, had to be retrained	13	14	10	16	17	14
At first, thought of job as temporary	15	14	18	33	36	31
At first, considered it a good job	81	82	79	66	65	69
Now consider it a good job	81	82	80	67	66	68

Table 55[a]

Characteristics of Current Job, By Race: Both Cohorts
(In Percentages)

Characteristics	1961 Cohort Total White (N=251,878)	1961 Cohort Total Black (N=6,153)	1966 Cohort Total White (N=870,099)	1966 Cohort Total Black (N=51,895)	1966 Cohort Black Men (N=22,702)	1966 Cohort Black Women (N=29,193)	1966 Cohort Total Oriental (N=7,753)	1966 Cohort Total American Indian (N=3,470)
Position is full-time	92	94	81	83	80	85	78	74
Supervise two or more persons	41	40	32	28	27	29	22	37
Fits in with own long-range goals	77	63	58	46	41	50	48	49
Offers good chances for advancement	56	33	42	42	41	44	45	46
Feel discrimination against self on advancement, conditions, etc.	12	25	12	24	25	24	16	28
Would like to remain on this job longer	69	59	50	39	35	42	56	40
Took this job after a difficult job search	16	18	27	32	36	29	27	20
Working for a salary considerably lower than own qualifications would deserve	24	36	36	38	34	40	37	34
At first, had to be retrained	12	12	15	17	16	18	16	15
At first, thought of job as temporary	15	22	34	30	33	28	46	22
At first, considered it a good job	82	67	67	57	60	55	58	80
Now consider it a good job	82	66	67	58	59	57	66	56

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[a] Base for the 1961 figures comprises respondents who gave full-time or part-time employment as their primary current activity; base for the 1966 figures comprises respondents who gave full-time or part-time employment as one of their current activities.

Table 56[a]

Characteristics of Current Job, by Graduate Field: 1961 Freshmen Who Ever Enrolled for Advanced Study (In Percentages)

Characteristics	Biological Sciences (N=5,192)	Physical Sciences and Math (N=13,802)	Health Fields (N=8,390)	Social Sciences (N=13,746)	Other Fields (N=146,813)
Position is full-time	95	96	93	96	93
Supervise two or more persons	47	31	61	45	41
Working in field in which trained	82	77	94	74	79
Took this job right after receipt of highest degree held	53	42	57	43	43
Fits in with own long-range goals	76	80	89	75	80
Offers good chances for advancement	41	49	63	55	54
Feel discrimination against self on advancement, conditions, etc.	15	12	6	14	11
Would like to remain on this job longer	63	79	69	64	70
Took this job after a difficult job search	30	29	9	30	17
Working for a salary considerably lower than own qualifications would deserve	48	30	19	23	25
At first, had to be retrained	6	7	1	9	7
Took a cut in pay	11	12	9	10	12
At first, thought of job as temporary	27	16	18	26	14
At first, considered it a good job	79	86	75	77	84
Now consider it a good job	76	84	81	76	82

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[a] Base for the 1961 figures comprises respondents who gave full-time or part-time employment as their primary current activity; base for the 1966 figures comprises respondents who gave full-time or part-time employment as one of their current activities.

Table 57[a]

Selected Characteristics of Current Job, by Graduate Field:
1961 Freshmen Who Interrupted Their Advanced Studies or Who Completed Their Studies with an Advanced Degree
(In Percentages)

Subgroup	N	Supervise Two or More Persons	Working in Field for which Trained	Fits in with Long-Range Goals	Offers Good Chance for Advancement	Took Job after Difficult Job Search	Salary is low Relative to Qualifications	Now Consider It a good job
Total, interrupted studies with no advanced degree	62,515	44	68	74	48	16	29	78
Biological sciences	1,081	18	72	66	39	6	51	72
Physical sciences and math	4,020	28	69	80	47	23	33	84
Health fields	778	54	90	79	63	7	12	83
Social sciences	3,802	60	57	64	59	34	28	66
Other fields	[illegible]3,682	44	67	76	46	15	29	80
Total, interrupted studies with a master's degree	32,170	43	82	80	52	19	29	79
Biological sciences	988	19	75	69	21	41	68	73
Physical sciences and math	1,827	37	86	75	39	18	40	82
Health fields	1,006	62	100	99	[illegible]5	11	22	77
Social sciences	3,356	32	84	81	48	28	26	72
Other fields	23,697	45	82	80	56	18	28	81
Total, completed studies with a master's degree	66,963	39	82	81	48	16	26	83
Biological sciences	1,372	50	86	74	29	19	40	80
Physical sciences and math	3,821	36	76	81	42	20	23	86
Health fields	968	34	88	82	39	21	21	85
Social sciences	3,598	40	68	73	52	30	17	89
Other fields	54,596	40	84	82	49	15	26	83
Total, completed studies with a Ph.D. or professional degree	38,804	40	88	86	72	24	20	85
Biological sciences	1,750	77	90	89	63	48	41	76
Physical sciences and math	4,128	26	80	82	60	48	29	84
Health fields	5,624	66	95	90	72	7	19	81
Social sciences	2,984	46	90	86	6[illegible]	26	20	76
Other fields	24,050	32	87	86	76	21	17	88

Table 58[a]

Characteristics of Current Job, by Graduate Field:
1966 Freshmen Who Ever Enrolled for Advanced study
(In Percentages)

Characteristics	Biological Sciences (N=5,335)	Physical Sciences and Mathematics (N=9,440)	Health Fields (N=13,017)	Social Sciences (N=14,136)	Other Fields (N=161,230)
Position is full-time	49	74	53	65	[illegible]7
Supervise two or more persons	24	33	28	34	35
Fits in with long-range goals	64	71	47	68	69
Offers good chances for advancement	28	38	27	36	37
Feel discrimination aginst self on advancement, conditions, etc.	13	18	10	12	14
Would like to remain on this job longer	47	52	36	35	53
Took this job after a difficult job search	28	22	17	31	29
Working for a salary considerably lower than own qualifications would deserve	42	40	42	38	35
At first, had to be retrained	11	11	11	10	[illegible]8
At first, thought of job as temporary	54	38	44	46	32
At first, considered it a good job	71	66	65	61	71
Now consider it a good job	68	67	68	71	71

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[a] Base for the 1961 figures comprises respondents who gave full-time or part-time employment as their primary current activity; base for the 1966 figures comprises respondents who gave full-time or part-time employment as one of their current activities.

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Table 59

Estimated Annual Salary for the Coming Year, Selected Subgroups: 1961 Cohort
(In Percentages)

						Salary			
Subgroup	Number	None	Below $7000	$7000-9999	$10,000-11,999	$12,000-13,999	$14,000-16,999	$17,000-19,999	$20,000 or over
Total	650,377	14	16	21	16	12	12	5	4
Men	386,718	2	12	20	20	17	17	7	6
Women	263,659	32	22	23	10	6	4	1	2
Total Black	8,457	8	16	36	18	14	4	2	1
Total never enrolled for advanced study	286,910	21	17	19	14	11	11	4	4
Plan advanced study/hold bachelor's degree	82,246	19	14	20	17	11	13	3	2
Plan advanced study/do not hold bachelor's degree	23,135	18	33	23	9	9	4	2	2
Do not plan advanced study/hold bachelor's degree	98,417	22	12	16	14	13	14	6	5
Do not plan advanced study/do not hold bachelor's degree	83,112	22	21	22	13	8	9	2	4
Total ever enrolled for advanced study	345,861	9	15	22	18	14	13	6	4
Currently enrolled	25,673	19	58	11	5	2	5		
Interrupted studies/hold no advanced degree	99,378	10	15	30	18	12	11	3	2
Interrupted studies/hold master's degree	42,556	3	11	25	26	17	13	3	2
Completed studies/hold a Ph.D. or professional degree	52,903	1	4	13	15	19	21	14	14
Completed studies/hold master's degree	80,999	9	8	23	21	16	13	6	4
Completed studies/hold no advanced degree	44,354	14	18	22	15	11	9	6	6
Total, ever enrolled in:									
Biological sciences	11,195	12	23	31	18	8	7	1	*
Physical sciences and math	21,012	4	19	24	15	16	15	7	1
Health fields	21,607	5	9	19	19	16	14	3	14
Social sciences	20,525	5	15	19	17	15	20	5	2
Other fields	209,483	9	14	22	18	14	13	6	4
Currently enrolled in:									
Biological sciences	2,516	23	54	11	11	1	1	0	0
Physical sciences and math	2,913	5	79	8	4	2	1	1	0
Health fields	1,877	33	42	5	15	3	1	0	2
Social sciences	2,485	14	47	12	10	3	15	0	*
Other fields	15,182	21	57	12	2	1	6	*	*
Interrupted studies with no advanced degree in:									
Biological sciences	2,578	18	24	39	9	5	5	0	0
Physical sciences and math	5,800	7	8	36	14	18	9	7	1
Health fields	1,828	19	22	15	18	11	12	2	1
Social sciences	6,147	7	19	34	17	9	9	2	2
Other fields	70,067	10	15	29	18	12	12	3	2
Interrupted studies with a master's degree in:									
Biological sciences	1,491	3	21	38	24	5	5	2	2
Physical sciences and math	2,825	3	17	36	18	11	13	1	1
Health fields	1,191	1	8	21	28	41	1	0	0
Social sciences	4,626	3	12	25	23	14	20	2	2
Other fields	30,921	3	10	24	27	18	13	4	1
Completed studies with a master's degree in:									
Biological sciences	1,784	5	5	46	35	3	6	*	0
Physical sciences and math	4,171	3	6	20	20	16	26	6	3
Health fields	1,243	8	22	21	17	18	12	1	1
Social sciences	3,808	4	3	9	26	15	26	13	5
Other fields	66,108	10	8	23	20	17	12	6	5
Completed studies with a Ph.D. or professional degree in:									
Biological sciences	2,826	6	8	27	18	22	15	3	2
Physical sciences and math	5,298	1	7	16	16	24	21	15	1
Health fields	15,312	*	3	20	19	16	17	5	19
Social sciences	3,449	0	5	2	6	35	38	12	2
Other fields	25,734	1	4	7	12	18	22	21	16

Table 60

Estimated Annual Salary for the Coming Year, Selected Subgroups: 1966 Cohort
(In Percentages)

						Salary			
Subgroup	Number	None	Below $7000	$7000-9999	$10,000 11,999	$12,000-13,999	$14,000-16,999	$17,000-19,999	$20,000 or over
Total	1,337,537	10	49	30	8	3	1	*	*
Men	778,452	6	46	30	11	4	2	1	1
Women	559,085	15	52	30	2	1	*	1	1
Total Black	62,412	10	51	26	8	1	*	0	0
Total Oriental	10,219	12	55	29	2	2	1	2	*
Total American Indian	6,554	10	72	16	3	0	0	0	0
Total, never enrolled for advanced study	879,010	9	49	30	8	3	1	*	*
Plan advanced study/hold bachelor's degree	330,821	4	42	41	9	3	1	*	*
Plan advanced study/do not hold bachelor's degree	195,705	11	61	17	6	3	1	*	*
Do not plan advanced study/ hold bachelor's degree	117,683	7	42	36	10	4	1	1	0
Do not plan advanced study/ do not hold bachelor's degree	234,801	16	51	22	7	2	1	1	1
Total, ever enrolled for advanced study	386,781	10	48	31	6	2	1	*	1
Currently enrolled	231,800	14	52	27	5	2	1	*	*
Interrupted studies/hold no advanced degree	77,383	4	45	38	7	3	2	1	1
Interrupted studies/hold master's degree	11,066	*	22	56	15	6	1	0	1
Completed studies/hold master's degree	16,484	3	18	53	12	6	3	1	4
Completed studies/hold no advanced degree	50,049	9	45	31	9	2	3	0	1
Total, ever enrolled in:									
Biological sciences	11,113	7	71	18	2	1	0	0	0
Physical sciences and mathematics	17,239	3	62	25	6	3	*	0	*
Health fields	35,284	35	45	17	1	*	*	*	0
Social sciences	22,650	8	59	25	7	1	1	*	*
Other fields	226,603	8	45	36	7	3	1	*	*
Currently enrolled in:									
Biological sciences	9,589	8	76	14	3	0	0	0	0
Physical sciences and mathematics	13,510	4	69	19	6	3	0	0	0
Health fields	29,268	42	47	11	1	0	0	*	0
Social sciences	16,426	9	66	21	4	1	1	*	*
Other fields	153,275	10	49	32	6	2	1	*	*

Table 61

Number and Percent Who Checked Unemployment as Their Primary Current Status, Selected Subgroups: 1961 Cohort

		Unemployed and Looking		Unemployed and Not Looking	
Subgroup	N	Number	Percent of Subgroup[a]	Number	Percent of Subgroup
Total	603,419	8,637	1.4	4,526	.8
Men	359,670	5,837	1.6	1,971	.5
Women	243,749	2,800	1.1	2,555	1.0
Black	7,436	199	2.7	0	0
Total, never enrolled for advanced study	277,154	4,593	1.7	3,345	1.2
Total, ever enrolled for advanced study	309,373	3,899	1.3	1,142	.4
Enrolled for advanced study in:					
Biological sciences	10,098	363	3.6	9	.1
Physical sciences and math	19,291	238	1.2	91	.5
Health fields	19,973	178	.9	11	.1
Social sciences	17,726	244	1.4	15	.1
Other fields	186,956	1,856	1.0	482	.3

[a] The percentages in this table are based on respondents to the question regarding "current primary activity".

Table 62

Number and Percent Who Checked Unemployment as a Current Status, Selected Subgroups: 1966 Cohort

		Unemployed and Looking		Unemployed and Not Looking	
Subgroup	N	Number	Percent of Subgroup	Number	Percent of Subgroup
Total	1,390,524	82,866	6.0	60,182	4.[illegible]
Men	803,597	48,974	6.1	22,[illegible]8	2.8
Women	586,927	33,892	5.8	37,694	6.4
Black	69,363	3,666	5.3	1,578	2.3
Total, never enrolled for advanced study	905,734	57,812	6.4	4[illegible],314	4.6
Plan advanced study/hold bachelor's degree	335,372	24,888	7.[illegible]	6,3[illegible]3	1.9
Plan advanced study/do not hold bachelor's degree	202,411	10,156	5.0	10,270	5.1
Do not plan advanced study/hold bachelor's degree	121,282	9,077	7.5	5,636	4.6
Do not plan advanced study/do not hold bachelor's degree	246,669	13,691	5.6	19,096	7.7
Total, ever enrolled for advanced study[a]	404,148	19,136	4.7	1[illegible]97	3.5

[a] Thirty-two percent (6,120) of those who ever enrolled for advanced study and who checked "unemployed and looking" were currently [illegible] and 63.7 percent (8,980) of this group who checked "unemployed and not looking" were currently enrolled.

Table 63

History, Plans, and Prospects of Those Who Were Neither Employed Nor Studying
Full-Time, by Sex: Both Cohorts
(In Percentages)

	1961 Cohort			1966 Cohort		
	Total (N=134,998)	Men (N=15,888)	Women (N=119,110)	Total (N=170,780)	Men (N=63,427)	Women (N=107,353)
Length of unemployment (not mutually exclusive)						
Since left school	9	12	0	25	27	23
More than Six months	39	32	41	43	36	47
More than a year	65	33	70	36	26	43
Reasons for not working:						
Left my job due to a company cut-back	3	13	1	8	13	5
Illness, accident, or health problem	2	5	2	5	7	4
Involved with home/child care	81	19	89	37	1	60
Travel, vacationing for an extended period of time	4	12	3	8	11	6
Did not want to work	31	14	34	20	10	27
Involved in extended studying or research	7	28	4	16	27	9
Couldn't find a job appropriate to my qualifications	5	14	3	16	22	12
Prefer volunteer or community activity	12	4	13	3	1	4
Moved to a new location, haven't found job	5	8	5	12	7	15
Other	7	24	5	20	33	12
Plans:						
Want to be working	20	55	15	48	67	36
Considering going back to school	40	39	41	56	55	56
Considering changing field	22	37	19	28	32	26
Prospects:						
Have good prospects	36	40	36	34	36	33
Expect to be out of work for long time	52	27	56	37	24	45
Lowest Base N						

Table 64

Number and Percent Who Were Unemployed Due to a Company Cutback
or Could Not Find a Suitable Job, Selected Subgroups: Both Cohorts

Subgroup	Total Number in Subgroup	Left Job Due To a Company Cutback		Couldn't Find Job Appropriate to Qualifications	
		Number	Percent	Number	Percent
	1961 Cohort				
Total	705,512	3,712	.6	6,014	.9
Men	405,281	2,093	.6	2,242	.6
Women	300,231	1,619	.6	3,772	1.3
Black	9,203	189	2.1	204	2.3
Total, ever enrolled for advanced study	366,359	1,575	.5	3,134	.9
Hold a Ph.D. or professional degree	55,969	139	.3	325	.6
	1966 Cohort				
Total	1,390,526	15,303	1.1	28,373	2.1
Men	803,597	9,319	1.2	15,393	2.0
Women	586,927	5,985	[illegible].1	12,980	2.3
Black	69,363	1,118	1.7	1,105	1.6
Total, ever enrolled for advanced study	404,148	3,233	.8	6,958	1.8

Table 65

Long-Run Occupation by Sex: Both Cohorts
(In Percentages)

Occupation	1961 Cohort Total	1961 Cohort Men	1961 Cohort Women	1966 Cohort Total	1966 Cohort Men	1966 Cohort Women
Physician/dentist	3	4	1	3	5	1
Allied health	4	1	7	5	2	10
Physical scientist	2	2	1	1	2	*
Biological scientist	1	1	1	1	1	1
Social scientist	1	1	1	1	1	1
Businessman	22	33	8	16	25	4
Lawyer	4	6	2	4	6	1
Engineer	4	6	*	5	8	*
Teacher (elementary)	8	1	17	8	1	18
Educator (secondary)	12	9	15	11	8	14
College or university teacher	7	8	7	6	6	6
Other professional	5	5	6	7	7	7
Housewife	5	*	12	5	*	11
All other choices	18	19	18	20	20	20
Undecided or none	5	4	5	7	8	7
Total	100	100	100	100	100	100
N	623,514	352,765	270,749	1,294,336	747,074	547,262

Table 66

The Health Field Pool Currently or Recently[a] and in the Long Run, by Sex: 1961 Cohort

Occupation	Currently or Recently Total	Currently or Recently Men	Currently or Recently Women	Long-Run Total	Long-Run Men	Long-Run Women
Physician-family practice	1,923	1,690	233	2,090	1,694	396
Physician - Other	8,030	6,609	1,421	10,943	8,868	2,075
Dentist	4,562	3,903	659	3,996	3,701	295
Veterinarian	1,070	872	198	1,643	1,162	481
Optometrist	762	732	30	589	579	10
Pharmacist	4,474	3,552	922	3,237	2,485	752
Dietician	1,692	10	1,682	2,427	10	2,417
Hygienist	664	7	657	596	50	546
Lab Technician	5,164	1,370	3,794	3,832	398	3,434
Nurse	7,677	207	7,470	8,606	349	8,257
Therapist	4,097	874	3,223	4,187	651	3,536

[a] Includes some persons who did not indicate employment as their primary current activity.

Table 67

The Health Field Pool Currently or Recently[a] and in the Long-Run, by Sex: 1966 Cohort

	Currently or Recently Total	Currently or Recently Men	Currently or Recently Women	Long-Run Total	Long-Run Men	Long-Run Women
Physician-family practice	-	-	-	9,418	8,565	853
Physician - Other	-	-	-	15,638	13,254	2,384
Dentist	-	-	-	8,580	8,382	198
Veterinarian	-	-	-	4,572	3,550	1,022
Optometrist	-	-	-	773	773	0
Pharmacist	3,574	2,459	1,115	4,337	3,458	879
Dietician	3,356	1,800	3,156	6,003	186	5,817
Hygienist	2,598	156	2,442	2,201	59	2,142
Lab Technician	11,827	4,710	7,117	10,173	3,096	7,077
Nurse	26,652	832	25,820	27,623	2,003	25,620
Therapist	9,283	1,389	7,893	16,828	2,409	14,419

[a] Includes some persons who did not indicate employment as a current activity.

Table 68

Long-Run Occupation, by Race: Both Cohorts
(In Percentages)

Occupation	1961 Cohort White	1961 Cohort Black	1966 Cohort White	1966 Cohort Black	1966 Cohort Oriental	1966 Cohort American Indian
Physician/dentist	4	3	3	1	9	0
Allied health	4	3	5	10	5	2
Physical scientist	2	6	1	1	1	0
Biological scientist	1	0	1	1	6	0
Social scientist	1	0	1	2	1	0
Businessman	21	21	17	15	13	15
Lawyer	4	2	4	2	1	0
Engineer	4	*	5	4	9	2
Teacher (elementary)	8	15	8	9	12	9
Educator (secondary)	12	13	11	13	4	20
College or university teacher	8	10	6	6	2	1
Other professional	6	3	7	7	9	5
Housewife	5	*	5	1	*	6
All other choices	17	19	19	24	25	24
Undecided or none	4	5	7	4	3	15
Total	100	100	100	100	100	100
N	367,441	7,462	1,168,110	57,029	9,538	6,433

Table 69

The Long-Run Health Field Pool by Race: 1966 Cohort

	Total Black	Black Men	Black Women	Total Oriental	Total American Indian
Physician-family practice	329	329	0	59	0
Physician - Other	187	144	42	651	0
Dentist	0	0	0	129	0
Veterinarian	133	133	0	0	0
Optometrist	0	0	0	0	0
Pharmacist	0	0	0	0	16
Dietitian	681	0	681	83	0
Hygienist	0	0	0	0	0
Lab Technician	848	64	784	279	0
Nurse	2,167	0	2,167	0	61
Therapist	1,869	43	1,826	75	60

Table 70

Long-Run Occupation, by Current Status and Advanced Study Plans: 1961 Freshmen
Who Never Enrolled for Advanced Study
(In Percentages)

		Plan Advanced Study		Do Not Plan Advanced Study	
Occupation	Total Never Enrolled for Advanced Study	Hold Bachelor's Degree	Do Not Hold Bachelor's Degree	Hold Bachelor's Degree	Do Not Hold Bachelor's Degree
Physician/dentist	1	1	3	0	*
Allied health	5	4	6	5	5
Physical scientist	1	1	1	1	*
Biological scientist	*	*	2	*	*
Social scientist	*	1	2	*	*
Businessman	28	24	19	35	26
Lawyer	1	2	4	*	*
Engineer	4	4	5	5	3
Teacher (elementary)	8	15	11	7	3
Educator (secondary)	7	15	4	5	2
College or university teacher	1	2	3	*	0
Other professional	5	7	8	5	4
Housewife	9	2	2	13	13
All other choices	24	20	24	17	37
Undecided or none	6	4	6	6	7
Total	100	100	100	100	100
N	275,020	78,972	22,429	94,713	78,906

Table 71

Long-Run Occupation, by Current Status and Advanced Study Plans: 1966 Freshmen
Who Never Enrolled for Advanced Study
(In Percentages)

		Plan Advanced Study		Do Not Plan Advanced Study	
Occupation	Total Never Enrolled for Advanced Study	Hold Bachelor's Degree	Do Not Hold Bachelor's Degree	Hold Bachelor's Degree	Do Not Hold Bachelor's Degree
Physician/dentist	1	1	3	0	*
Allied health	6	5	6	6	6
Physical scientist	1	1	1	*	*
Biological scientist	1	1	2	*	*
Social scientist	1	1	2	*	*
Businessman	18	18	15	29	17
Lawyer	3	4	5	*	*
Engineer	5	4	7	5	5
Teacher (elementary)	7	12	6	5	3
Educator (secondary)	10	16	10	5	4
College or university teacher	3	5	5	*	*
Other professional	7	6	10	7	7
Housewife	6	2	2	10	12
All other choices	22	16	19	22	33
Undecided or none	9	7	6	10	12
Total	100	100	100	100	100
N	849,575	318,887	190,955	110,702	229,031

Table 72

Long-Run Occupation, by Advanced Study Index: 1961 Cohort
(In Percentages)

			Interrupted Studies		Completed Studies		
Occupation	Total Ever Enrolled for Advanced Study	Currently Enrolled	Hold No Advanced Degree	Hold Master's Degree	Hold Ph.D. or Professional Degree	Hold Master's Degree	Hold no Advanced Degree
Physician/dentist	5	5	1	1	28	*	*
Allied health	3	1	3	2	*	2	8
Physical scientist	2	6	1	2	6	1	1
Biological scientist	2	9	1	2	4	1	*
Social scientist	2	4	1	4	2	*	*
Businessman	17	8	19	16	5	21	25
Lawyer	7	13	3	4	29	*	0
Engineer	3	4	4	2	2	5	2
Teacher (elementary)	8	2	11	1	0	11	12
Educator (secondary)	16	4	25	15	*	22	8
College or university teacher	13	26	6	36	18	7	*
Other professional	5	5	7	3	1	7	5
Housewife	2	0	2	*	*	3	7
All other choices	13	12	14	9	3	14	27
Undecided or none	4	2	3	3	2	6	6
Total	100	100	100	100	100	100	100
N	332,422	26,708	97,133	41,015	9,462	78,955	39,149

Table 73

Long-Run Occupation, by Graduate Field: 1961 Freshmen Who Ever Enrolled for Advanced Study
(In Percentages)

Occupation	Biological Sciences	Physical Sciences and Mathematics	Health Fields	Social Sciences	Other Fields
Physician/dentist	5	*	73	*	*
Allied health	1	1	13	*	1
Physical scientist	1	30	0	0	*
Biological scientist	40	1	2	*	*
Social scientist	*	*	*	19	1
Businessman	5	7	1	12	19
Lawyer	*	2	*	3	10
Engineer	0	1	0	*	5
Teacher (elementary)	*	1	0	1	9
Educator (secondary)	14	16	*	10	19
College or university teacher	23	23	6	28	13
Other professional	1	7	*	3	6
Housewife	1	2	*	1	2
All other choices	6	6	4	18	13
Undecided or none	4	3	1	5	4
Total	100	100	100	100	100
N	11,513	20,537	21,476	20,599	203,898

Table 74

Long-Run Occupation, by Graduate Field: 1966 Freshmen Who Ever Enrolled for Advanced Study
(In Percentages)

Occupation	Biological Sciences	Physical Sciences and Mathematics	Health Fields	Social Sciences	Other Fields
Physician/dentist	12	2	67	*	*
Allied health	2	0	20	*	1
Physical scientist	1	35	*	*	*
Biological scientist	43	0	1	*	*
Social scientist	0	0	*	25	1
Businessman	2	2	2	7	13
Lawyer	0	1	0	3	12
Engineer	0	1	0	0	5
Teacher (elementary	2	*	0	4	13
Educator (secondary)	12	16	*	8	17
College or university teacher	16	24	2	26	14
Other professional	0	8	1	6	7
Housewife	*	1	2	*	1
All other choices	6	6	4	17	11
Undecided or none	4	4	1	5	3
Total	100	100	100	100	100
N	11,181	17,368	35,470	22,755	225,702

Table 75

Long-Run Employer by Sex: Both Cohorts
(In Percentages)

Employer	1961 Freshmen			1966 Freshmen		
	Total	Men	Women	Total	Men	Women
Hospital, clinic	3	1	6	5	2	9
Medical group practice	1	1	1	2	2	2
Professional school	1	1	1	1	1	1
College or university	10	10	9	8	8	8
Elementary or secondary education	20	11	33	18	8	32
Self-employed (partnership)	17	24	8	15	22	6
Research organization or institute	2	3	1	2	3	2
Church, welfare or other nonprofit organization (excluding research)	2	2	3	2	2	2
Private company	19	26	9	16	22	7
Government and Military	8	10	5	9	10	7
Undecided	9	9	10	15	16	14
Not applicable	5	*	11	4	*	8
Other	3	3	3	4	4	3
Total	100	100	100	100	100	100
N	655,386	380,537	274,849	1,308,988	757,351	551,637

Table 76

Long-Run Employer, by Current Status and Advanced Study Plans: 1961 and 1966 Freshmen Who Never Enrolled for Advanced Study
(In Percentages)

Employer	Total Never Enrolled for Advanced Study	Plan Advanced Study		Do Not Plan Advanced Study	
		Hold Bachelor's Degree	Do Not Hold Bachelor's Degree	Hold Bachelor's Degree	Do Not Hold Bachelor's Degree
		1961 Cohort			
Hospital, clinic	4	3	7	3	4
Medical group practice	1	1	2	*	1
Professional school	1	1	1	*	1
College or university	2	4	5	1	1
Elementary or secondary education	15	28	13	12	5
Self-employed (partnership)	17	12	13	19	20
Research organization	1	1	3	1	*
Other nonprofit organization	2	2	3	2	2
Private company	27	18	24	31	33
Government and military	10	13	14	7	8
Undecided	9	10	10	9	9
Not applicable	9	3	3	12	13
Other	4	4	3	3	4
Total	100	100	100	100	100
N	290,137	83,810	23,536	100,274	82,517
		1966 Cohort			
Hospital, clinic	5	4	6	5	5
Medical group practice	1	*	2	*	2
Professional school	1	1	2	*	*
College or university	5	7	7	1	1
Elementary or secondary education	17	27	15	10	7
Self-employed (partnership)	15	13	17	19	16
Research organization	2	3	4	1	2
Other nonprofit organization	2	2	2	2	2
Private company	18	14	15	25	23
Government and military	10	11	10	7	9
Undecided	16	15	16	18	18
Not applicable	5	2	2	7	10
Other	4	2	4	4	7
Total	100	100	100	100	100
N	857,281	321,785	193,722	115,047	226,727

Table 77

Long-Run Employer, by Advanced Study Index:
1961 Freshmen Who Ever Enrolled for Advanced Study
(In Percentages)

			Interrupted Studies		Completed Studies		
Employer	Total Ever Enrolled for Advanced Study	Currently Enrolled	Hold No Advanced Degree	Hold Master's Degree	Hold Ph.D or Professional Degree	Hold Master's Degree	Hold No Advanced Degree
Hospital, clinic	2	3	2	2	2	2	5
Medical group practice	2	1	*	*	8	*	1
Professional school	1	2	1	1	5	*	*
College or university	16	35	9	43	22	9	*
Elementary or secondary education	25	7	38	18	*	37	21
Self-employed (partnership)	17	14	11	9	40	11	23
Research organization or institute	3	6	3	3	4	2	1
Nonprofit organization	2	5	2	1	*	3	3
Private company	12	8	14	6	7	15	21
Government and military	7	7	11	6	3	8	5
Undecided	9	12	8	10	8	11	9
Not applicable	2	*	1	*	*	2	6
Other	2	1	1	2	1	1	6
Total	100	100	100	100	100	100	100
N	348,559	26,580	101,619	42,914	53,025	82,343	42,078

Table 78

Long-Run Employer, by Graduate Field: 1961 and 1966 Freshmen
Who Ever Enrolled for Advanced Study
(In Percentages)

Employer	Biological Sciences	Physical Sciences and Mathematics	Health Fields	Social Sciences	Other Fields
		1961 Cohort			
Hospital, clinic	1	*	11	4	1
Medical group practice	*	*	21	*	*
Professional school	6	*	7	*	1
College or university	37	32	6	35	16
Elementary or secondary education	16	17	2	12	29
Self-employed (partnership)	7	6	41	9	16
Research organization	11	12	2	6	2
Other nonprofit organization	*	*	*	2	3
Private company	4	13	*	8	13
Government and military	8	8	3	11	7
Undecided	9	10	5	11	10
Not applicable	*	1	1	1	1
Other	*	*	1	1	2
Total	100	100	100	100	100
N	11,365	21,043	22,516	21,426	212,666
		1966 Cohort			
Hospital, clinic	3	0	19	9	2
Medical group practice	4	*	29	1	*
Professional school	2	*	5	*	1
College or university	38	34	2	34	17
Elementary or secondary education	14	15	4	12	30
Self-employed (partnership)	7	3	29	6	14
Research organization	16	14	1	5	2
Other nonprofit organization	*	*	2	2	3
Private company	1	11	*	2	11
Government and military	6	7	1	15	6
Undecided	8	15	7	13	11
Not applicable	0	*	1	*	1
Other	2	1	1	1	2
Total	100	100	100	100	100
N	11,201	17,036	35,282	22,760	228,076

Table 79

Long-Run Work Activities, by Sex: 1961 and 1966 Freshmen
(In Percentages)

Long-Run Activities Involving 40 Percent or More of Time	1961 Freshmen			1966 Freshmen		
	Total	Men	Women	Total	Men	Women
Administrative or managerial duties	33	46	17	29	38	17
Teaching	26	17	39	29	19	43
Research (or development)	11	13	9	17	19	14
Consulting	11	13	9	17	19	15
Service to patients or clients (including indirect)	22	22	21	27	26	29
clerical-secretarial	2	1	4	3	1	6
Sales, promotion, public relations, advertising	9	12	5	10	13	6
Operations (production, quality control, testing, field work, etc.)	9	13	4	15	20	8
Writing, editing (creative, technical, etc.)	8	8	7	11	12	11
Other	4	3	5	7	6	8
Base N	705,512	405,281	300,231	1,390,524	803,597	586,927

Table 80

Long-Run Work Activities, by Graduate Field: 1961 and 1966 Freshmen Who Ever Enrolled for Advanced Study
(In Percentages)

Long-Run Activities Involving 40 Percent Or More of Time	Biological Sciences	Physical Sciences and Mathematics	Health Fields	Social Sciences	Other Fields
1961 Cohort					
Administrative duties	17	22	12	22	33
Teaching	39	44	17	33	36
Research (or development)	45	34	9	25	12
Consulting	10	5	17	16	14
Service to patients or clients	14	6	74	27	24
Clerical-secretarial	0	*	0	*	1
Sales, promotion, public relations, advertising	2	2	1	3	6
Operations	6	5	2	4	5
Writing, editing	10	6	2	10	10
Other	1	1	*	1	3
BASE N	11,789	21,569	23,546	21,948	220,654
1966 Cohort					
Administrative duties	8	11	13	19	27
Teaching	38	46	14	39	45
Research (or development)	52	45	6	30	17
Consulting	8	10	16	20	20
Service to patients or clients	16	7	79	37	28
Clerical-secretarial	1	2	*	2	1
Sales, promotion, public relations, advertising	2	3	3	4	6
Operations	12	14	5	11	8
Writing, editing	6	7	2	15	14
Other	1	2	3	4	5
Base N	11,278	17,788	37,821	23,565	234,115

Table 81

Number and Percent Planning Long-Run Involvement in Research or Development, by Graduate Field: 1961 and 1966 Freshmen Who Ever Enrolled for Advanced Study

Amount of Involvement In Research or Development	Biological Sciences		Physical Sciences and Math		Health Fields		Social Sciences		Other Fields	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
			1961 Cohort							
40 percent or more of time	5,256	45	7,317	34	2,030	9	5,479	25	26,907	12
Less than 40 percent of time	3,538	30	6,651	31	7,516	32	6,723	31	52,360	24
None	2,995	25	7,602	35	14,000	60	9,603	44	141,387	64
Total	11,789	100	21,569	100	23,546	100	21,805	100	220,654	100
			1966 Cohort							
40 percent or more of time	5,803	52	7,981	45	2,385	6	7,117	30	40,382	17
Less than 40 percent of time	2,843	25	4,276	24	13,197	35	8,428	36	69,364	30
None	2,632	23	5,531	31	22,239	59	8,020	34	124,169	53
Total	11,278	100	17,788	100	37,821	100	23,565	100	234,115	100

Table 82

Expected and Preferred Future Activities of Women: Total, Both Cohorts
(In Percentages)

Activity	1961 Cohort		1966 Cohort	
	Preferred	Expected	Preferred	Expected
Housewife only	16	10	12	8
Housewife with occasional employment	33	24	32	29
Housewife for a few years, employment later	22	28	15	18
Housewife with regular employment	24	28	34	37
Employment only	6	10	7	8
Total	100	100	100	100
N	261,818	247,310	563,350	542,644

Table 83

Expected and Preferred Activities of Women,
by Level of Educational Attainment and Aspirations: Both Cohorts
(In Percentages)

Activity	Never Enrolled for Advanced Study/Do Not Plan to Enroll in Future		Never Enrolled for Advanced Study/Plan to Enroll in Future		Total Ever Enrolled for Advanced Study		Received a Ph.D. or Professional Degree	
	Preferred	Expected	Preferred	Expected	Preferred	Expected	Preferred	Expected
			1961 Cohort					
Housewife only	26	20	12	6	9	4	3	1
Housewife with occasional employment	42	32	32	21	27	20	3	8
Housewife for a few years, employment later	18	26	28	32	22	26	11	12
Housewife with regular employment	11	16	23	32	34	37	62	52
Employment only	3	5	6	10	9	13	21	27
Total	100	100	100	100	100	100	100	100
N	87,437	81,301	52,474	49,620	112,564	108,389	2,965	2,958
			1966 Cohort					
Housewife only	23	16	8	5	5	4	-	-
Housewife with occasional employment	39	39	33	27	24	23	-	-
Housewife for a few years, employment later	12	15	16	20	16	17	-	-
Housewife with regular employment	22	23	36	40	46	46	-	-
Employment only	5	8	7	8	8	10		
Total	100	100	100	100	100	100	-	-
N	162,567	155,309	214,482	207,753	158,205	154,310		

Table 84

Most Influential Person in Choice of Career, by Sex: 1961 Cohort
(In Percentages)

Person	Total	Men	Women
Friend	13	14	10
Spouse	42	36	50
Parents	10	10	10
Siblings	1	1	1
Faculty advisor	3	3	2
Professor or instructor	5	6	4
College placement personnel	*	*	*
College counselor	*	*	*
Counselor in other agency	1	1	1
Person employed in my intended field	10	12	9
Job supervisor	6	7	5
Other	9	10	7
Total	100	100	100
N	593,182	339,814	253,368

Table 85

Important Considerations in Choice of Long-Run Occupation by Sex: Both Cohorts
(In Percentages)

Considerations	1961 Cohort Total (N=705,512)	1961 Cohort Men (N=405,281)	1961 Cohort Women (N=300,231)	1966 Cohort Total (N=1,390,524)	1966 Cohort Men (N=803,597)	1966 Cohort Women (N=586,927)
Job openings are generally available	30	26	34	33	30	37
Rapid career advancement is possible	23	31	12	25	32	15
High anticipated earnings	37	46	25	36	43	26
It's a well-respected or prestigious occupation	34	37	30	32	34	29
It provides a great deal of autonomy	31	36	25	26	29	23
Chance for steady progress	33	41	24	38	44	31
Chance for originality	51	50	52	50	48	53
Can make an important contribution to society	47	42	53	47	44	52
Can avoid pressure	10	9	12	15	13	17
Can work with ideas	52	53	51	54	53	55
Can be helpful to others	58	50	69	64	56	75
Have leadership opportunities	38	46	28	36	41	30
Able to work with people	61	55	67	63	57	72
Intrinsic interest in the field	48	47	49	51	50	52
Enjoyed my past experience in this occupation	50	44	58	41	35	49

Table 86

Important Considerations in Choice of Long-Run Occupation, by Graduate Field:
1961 Freshmen Who Ever Enrolled for Advanced Study
(In Percentages)

Considerations	Biological Sciences (N=11,789)	Physical Sciences and Mathematics (N=21,569)	Health Fields (N=23,546)	Social Sciences (N=21,948)	All Other Fields (N=220,654)
Job openings are generally available	28	31	41	30	28
Rapid career advancement is possible	16	16	12	21	24
High anticipated earnings	18	26	54	33	36
It's a well-respected or prestigious occupation	27	31	63	36	38
It provides a great deal of autonomy	43	41	67	61	40
Chance for steady progress	31	32	25	36	32
Chance for originality	59	65	44	61	57
Can make an important contribution to society	56	48	71	59	57
Can avoid pressure	18	9	8	12	10
Can work with ideas	59	63	39	59	57
Can be helpful to others	51	51	81	59	66
Have leadership opportunities	25	29	31	34	45
Able to work with people	39	51	67	54	65
Intrinsic interest in the field	77	63	68	62	54
Enjoyed my past experience in this occupation	49	48	48	44	49

Table 87

Important Considerations in Choice of Long-Run Occupation, by Graduate Field: 1961 Freshmen Who Received a Ph.D. or Professional Degree

(In Percentages)

Considerations	Biological Sciences Total (N=2,926)	Physical Sciences and Mathematics Total (N=5,391)	Health Fields Total (N=16,674)	Social Sciences Total (N=3,524)	All Other Fields (N=27,156)
Job openings are generally available	38	29	34	25	16
Rapid career advancement is possible	15	19	12	15	33
High anticipated earnings	16	34	62	30	59
It's a well-respected or prestigious occupation	28	33	71	42	56
It provides a great deal of autonomy	64	58	72	83	61
Chance for steady progress	33	38	24	32	33
Chance for originality	87	77	40	67	57
Can make an important contribution to society	64	46	68	52	65
Can avoid pressure	17	9	7	22	7
Can work with ideas	81	70	38	72	60
Can be helpful to others	54	41	79	47	62
Have leadership opportunities	24	29	29	28	47
Able to work with people	42	40	66	48	55
Intrinsic interest in the field	90	74	71	79	55
Enjoyed my past experience in this occupation	50	43	45	51	30

Table 88

Important Considerations in Choice of Long-Run Occupation, by Graduate Field: 1966 Freshmen Who Ever Enrolled for Advanced Study

(In Percentages)

Considerations	Biological Sciences (N=11,278)	Physical Sciences and Mathematics (N=17,788)	Health Fields (N=37,821)	Social Sciences (N=23,565)	All Other Fields (N=234,115)
Job openings are generally available	36	34	41	26	31
Rapid career advancement is possible	16	16	14	16	22
High anticipated earnings	21	25	44	25	32
It's a well-respected or prestigious occupation	29	33	54	33	38
It provides a great deal of autonomy	40	30	52	55	36
Chance for steady progress	34	34	25	29	34
Chance for originality	64	66	41	62	61
Can make an important contribution to society	54	47	72	66	58
Can avoid pressure	15	13	13	10	12
Can work with ideas	55	68	41	63	62
Can be helpful to others	57	54	85	73	72
Have leadership opportunities	28	33	34	32	42
Able to work with people	43	45	76	65	72
Intrinsic interest in the field	75	72	67	67	60
Enjoyed my past experience in this occupation	34	44	37	34	43

Table 89

Life Goals, by Sex: 1961 Cohort
(In Percentages)

Objectives Rated "Essential" or "Very Important"	Total (N=693,512)	Men (N=397,902)	Women (N=295,610)
Become accomplished in a performing art	14	11	17
Become an authority in my field	48	57	35
Obtain recognition from colleagues	40	50	27
Be very well-off financially	38	47	27
Help others in difficulty	59	54	66
Become a community leader	16	19	11
Make a theoretical contribution to science	6	8	3
Write original works (poems, etc.)	7	6	8
Be successful in business of own	27	37	13
Raise a family	78	76	81
Become involved in programs to clean up the environment	36	35	37
Develop ways to use science and technology in improving the quality of life	33	38	28
Be involved in efforts to improve health, reduce illness	37	34	41
Engage in hobbies and leisure activities	64	62	67

Table 90

Amount of Advanced Study Completed, by Sex and
Selected Race: Both Cohorts
(In Percentages)

				Selected Race		
Amount	Total	Men	Women	Black	Oriental	American Indian
1961 Cohort						
None, don't plan to enroll	30	27	34	8	-	-
None, plan to enroll	18	16	22	38	-	-
One semester	9	7	10	14	-	-
One year	14	14	14	14	-	-
Two years	13	14	11	12	-	-
Three years	7	9	4	7	-	-
Four Years or more	9	13	5	7	-	-
Total	100	100	100	100		
N	689,019	397,963	291,057	9,045		
1966 Cohort						
None, don't plan to enroll	28	27	31	13	25	29
None, plan to enroll	43	44	43	57	39	42
One semester	11	10	12	10	10	15
One year	12	12	11	12	19	13
Two years	4	4	3	4	3	*
More than two years	2	3	1	5	5	*
Total	100	100	100	100	100	100
N	1,312,930	756,404	556,526	63,209	9,952	6,407

Table 91

Actual or Planned Graduate Major by Sex: Both Cohorts
(In Percentages)

Major	1961 Cohort			1966 Cohort		
	Total (N=350,119)	Men (N=221,619)	Women (N=128,500)	Total (N=631,350)	Men (N=383,417)	Women (N=247,933)
Biological sciences	4	4	3	3	4	3
Health fields	7	8	6	9	8	10
Physical sciences and mathematics	7	9	5	5	7	3
Social sciences	7	8	7	8	8	8
Law	8	10	4	8	11	2
Education	19	13	30	18	9	32
Engineering	5	7	1	4	7	*
Arts and humanities	12	9	18	14	11	18
Business	14	19	5	14	20	3
All other fields	16	14	21	18	14	23
Total	100	100	100	100	100	100

Table 92

Number and Percent with Actual or Planned Majors in Graduate
Health Fields, by Sex: Both Cohorts

Major	1961 Cohort			1966 Cohort		
	Total	Men	Women	Total	Men	Women
Health technology	983	643	340	3,790	2,064	1,727
Nursing	2,547	39	2,508	9,395	418	8,977
Pharmacy	647	434	213	1,197	721	476
Dentistry	4,563	4,197	365	6,719	6,534	185
Medicine	11,902	9,735	2,167	20,931	18,050	2,881
Veterinary	1,615	1,201	414	3,435	2,451	984
Therapy	3,315	963	2,353	10,224	1,923	8,301
Total	25,572	[illegible]212	8,360	55,692	32,161	23,531
		Percent				
Health technology	3.8	3.7	4.1	6.8	6.4	7.3
Nursing	9.9	.2	30.0	16.9	1.3	38.1
Pharmacy	2.5	2.5	2.5	2.1	2.2	2.0
Dentistry	17.8	24.4	4.4	12.1	20.3	.8
Medicine	46.5	56.6	25.9	37.6	56.1	12.2
Veterinary	6.3	6.9	4.9	6.2	7.6	4.2
Therapy	12.9	5.6	28.1	18.4	5.9	35.3
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table 93

Actual or Planned Graduate Major By Selected Race: Both Cohorts
(In Percentages)

Major	1961 Cohort White (N=224,494)	 Black (N=5,664)	1966 Cohort White (N=576,136)	 Black (N=31,688)
Biological Sciences	4	2	3	2
Health Fields	8	3	9	8
Physical Sciences and Mathematics	8	11	5	3
Social Sciences	8	5	8	8
Law	8	*	8	3
Education	18	26	18	23
Engineering	6	*	4	2
Arts and Humanities	12	12	14	11
Business	13	13	14	18
Other Fields	17	27	18	22
Total	100	100	100	100

Table 94

Those Who Ever Enrolled for Advanced Study by Sex, Race, and Graduate Major: Both Cohorts

Sub-group	1961 Cohort Number	 Percent	1966 Cohort Number	 Percent
Total ever enrolled for advanced study	366,359	100	404,148	100
Men	229,763	63	239,207	59
Women	136,596	37	164,941	41
Total by race	238,020	100	401,809	100
White	231,626	97	365,685	91
Black	5,341	2	19,990	5
Oriental	604	*	4,090	1
American Indian	119	*	1,695	*
Other	330	*	10,350	3
Total by Field				
Biological sciences	11,789	3	11,278	3
Physical sciences and mathematics	21,569	6	17,788	4
Health fields	23,546	6	37,321	9
Social sciences	21,948	6	2[illegible],564	6
Other fields	[illegible],654	60	234,115	58
Unknown	66,853	18	79,582	20

Table 95

Advanced Study Index, by Sex: Both Cohorts
(In Percentages)

Subgroup	Total Ever Enrolled for Advanced Study	Currently Enrolled	Interrupted Studies: Hold No Advanced Degree	Interrupted Studies: Hold Master's Degree	Completed Studies: Hold Ph.D. or Professional Degree	Completed Studies: Hold Master's Degree	Completed Studies: Hold No Advanced Degree
1961 Cohort							
Men	63	74	57	66	83	57	53
Women	37	26	43	34	17	43	47
Total	100	100	100	100	100	100	100
N	366,359	27,209	105,933	44,460	55,969	85,598	47,189
1966 Cohort							
Men	59	62	56	59	-	46	57
Women	41	38	44	41	-	54	43
Total	100	100	100	100	-	100	100
N	404,148	243,024	78,702	11,084	-	16,910	54,428

Table 96

1961 Freshmen Who Ever Enrolled for Advanced Study
By Advanced Study Index, Sex, Race, and Graduate Major
(In Percentages)

Subgroup	Total Ever Enrolled: Number	Total Ever Enrolled: Percent	Currently Enrolled	Interrupted Studies: Hold No Advanced Degree	Interrupted Studies: Hold a Master's Degree	Studies Completed: Hold Ph.D. or Professional Degree	Studies Completed: Hold Master's	Studies Completed: Hold No Advanced Degree
Total, ever enrolled	366,359	100	7	29	12	15	23	13
Men	229,763	100	9	26	13	20	21	11
Women	136,596	100	5	34	11	7	27	16
Race:								
White	231,626	100	7	28	12	17	25	11
Black	5,341	100	5	32	21	8	16	16
Oriental	604	100	9	8	13	14	47	9
American Indian	119	100	29	0	16	52	0	3
Other	330	100	3	29	0	55	7	6
Graduate Field:								
Biological sciences	11,789	100	22	23	13	25	17	0
Physical sciences	21,569	100	14	28	13	25	20	0
Health fields	23,546	100	9	8	6	71	6	1
Social sciences	21,948	100	11	32	22	16	19	*
Other	220,654	100	7	34	15	12	32	1
Unknown	66,853	100	1	21	3	*	6	68

Table 97

1966 Freshmen Who Ever Enrolled for Advanced Study By Advanced Study Index, Sex, Race, and Graduate Major

	Total Ever Enrolled			Interrupted Studies		Studies Completed	
Subgroup	Number	Percent	Currently Enrolled	Hold No Advanced Degree	Hold a Master's Degree	Hold a Master's Degree	Hold No Advanced Degree
Total, ever enrolled:	404,148	100	60	20	3	4	14
Men	239,207	100	63	18	3	3	13
Women	164,941	100	56	21	3	6	14
Race:							
White	365,685	100	62	18	3	4	13
Black	19,990	100	46	35	4	1	14
Oriental	4,090	100	56	20	1	8	15
American Indian	1,695	100	28	5	0	0	67
Other	10,350	100	40	28	4	*	28
Graduate Field:							
Biological sciences	11,278	100	86	11	2	*	0
Physical sciences and mathematics	17,788	100	78	17	2	3	*
Health fields	37,821	100	84	12	1	2	1
Social sciences	23,564	100	73	20	4	3	0
Other fields	234,115	100	68	22	4	6	1
Unknown	79,582	100	13	18	*	1	67

Table 98

Graduate Major of 1961 and 1966 Freshmen Who Ever Enrolled for Advanced Study (In Percentages)

	1961 Cohort		1966 Cohort	
Major	Ever Enrolled	Currently Enrolled	Ever Enrolled	Currently Enrolled
Biological sciences				
Basic medical sciences				
Biochemistry	14	27	9	9
Microbiology	10	21	9	9
Pharmacology	3	6	1	1
Physiology	7	4	6	6
Other biosciences				
Biology (general)	24	5	24	25
Biophysics	2	1	1	1
Botany	5	3	11	10
Zoology	17	10	21	21
Other	19	24	18	19
Total	100	100	100	100
N	11,789	2,601	11,278	9,755
Health fields				
Health technology	3	2	5	3
Nursing	6	7	7	4
Pharmacy	2	2	2	1
Dentistry	19	14	17	20
Medicine	50	33	47	54
Veterinary medicine	6	14	6	6
Therapy	11	6	14	9
Other	3	22	3	3
Total	100	100	100	100
N	22,596	1,989	34,354	28,184

Continues

Table 98 (continued)

Graduate Major of 1961 and 1966 Freshmen Who Ever Enrolled for Advanced Study
(In Percentages)

Major	1961 Cohort Ever Enrolled	1961 Cohort Currently Enrolled	1966 Cohort Ever Enrolled	1966 Cohort Currently Enrolled
Physical sciences and mathematics				
Chemistry	20	24	23	26
Earth sciences	9	10	15	14
Physics	17	18	13	15
Mathematics	39	34	30	27
Statistics	4	1	4	4
Computer science	6	6	9	9
Other	4	5	6	6
Total	100	100	100	100
N	21,569	3,026	17,788	13,787
Social sciences				
Anthropology	3	6	5	6
Economics	16	9	13	14
Policy sciences	2	5	5	2
Political science	24	13	20	20
Psychology	43	48	46	49
Sociology	13	20	11	9
Total	100	100	100	100
N	21,948	2,488	23,564	17,290
All other fields				
English	4	6	4	5
History	4	8	3	4
Languages	2	5	3	3
Other arts and humanities	7	11	8	7
Business	16	13	13	11
Engineering	7	10	6	6
Law	12	17	12	15
Education	27	12	30	28
Theology	2	3	2	3
Social work	3	3	3	3
Library science	2	1	2	2
Other	14	12	14	13
Total	100	100	100	100
N	219,786	16,076	233,945	159,942

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Table 99

Undergraduate Major of 1961 Freshmen Who Ever Enrolled for Advanced Study
by Graduate Field
(In Percentages)

	1961 Cohort				
Undergraduate Major	Biological Sciences (N=11,559)	Physical Sciences and Mathematics (N=21,258)	Health Fields (N=22,467)	Social Sciences (N=21,528)	Other Fields (N=214,282)
Basic Medical Sciences					
Biochemistry	1	*	1	0	*
Microbiology	1	0	*	0	*
Pharmacology	0	0	*	0	0
Physiology	*	0	*	0	*
Other Biosciences					
Biology (general	52	1	17	*	1
Biophysics	*	0	0	0	0
Botany	7	0	0	0	*
Zoology	12	*	10	1	1
Other	5		*	0	*
Health Fields					
Health technology	1	0	*	0	*
Nursing	*	0	6	1	*
Pharmacy	1	1	2	0	*
Dentistry	0	0	7	0	*
Medicine	1	*	14	1	*
Veterinary medicine	0	0	4	0	*
Therapy	0	0	7	*	*
Physical sciences and mathematics	10	87	14	4	5
Social sciences	1	1	5	58	13
Law	0	0	*	0	1
Education	*	3	1	10	14
Engineering	1	5	1	1	10
Arts and humanities	1	1	10	10	28
Business	0	1	1	7	11
Other fields	7	1	1	7	16
Total	100	100	100	100	100

Table 100

Undergraduate Major of 1966 Freshmen Who Ever Enrolled for Advanced Study
by Graduate Field
(In Percentages)

	1966 Cohort				
Undergraduate Major	Biological Sciences (N=11,133)	Physical Sciences and Mathematics (N=17,621)	Health Fields (N=34,456)	Social Sciences (N=22,991)	Other Fields (N=230,511)
Basic Medical Sciences					
Biochemistry	2	3	1	0	0
Microbiology	3	0	*	*	*
Pharmacology	0	0	0	0	*
Physiology	*	0	*	0	*
Other Biosciences					
Biology (general)	45	2	22	1	1
Biophysics	*	0	*	0	0
Botany	2	0	*	0	*
Zoology	24	*	9	0	*
Other	3	*	*	0	*
Health Fields					
Health technology	1	0	1	*	*
Nursing	*	0	5	1	*
Pharmacy	0	0	1	0	0
Dentistry	*	0	3	0	*
Medicine	*	0	9	*	*
Veterinary medicine	0	0	4	0	*
Therapy	0	0	8	0	1
Physical sciences and mathematics	6	84	13	2	4
Social sciences	1	1	7	70	16
Law	0	0	0	0	1
Education	1	2	1	6	15
Engineering	1	5	2	1	8
Arts and humanities	4	1	7	7	28
Business	0	2	1	4	11
Other fields	6	1	5	9	16
Total	100	100	100	100	100

Table 101

Year Received Bachelor's Degree and Year Entered Advanced Study by Graduate Field: 1961 Freshmen Who Ever Enrolled for Advanced Study

Year	Total Ever Enrolled for Advanced Study		Biological Sciences		Physical Sciences and Math		Health Fields		Social Sciences		Other Fields	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Year received bachelor's degree												
1963	5,304	2	54	*	768	4	854	4	237	1	2,516	1
1964	24,224	7	785	7	1,658	8	2,934	1	1,064	5	13,689	6
1965	224,979	65	7,413	65	15,333	73	14,767	67	13,910	66	136,809	65
1966	54,858	16	2,100	18	2,087	10	2,011	9	3,542	17	35,634	17
1967	17,043	5	479	4	411	2	748	3	737	4	11,587	6
1968	7,665	2	157	1	369	2	331	2	590	3	4,606	2
1969	5,454	2	292	3	225	1	447	2	739	4	2,827	1
1970	4,075	1	6	*	227	1	86	*	232	1	3,065	2
1971	2,143	1	70	*	86	*	3	*	158	1	1,299	1
Total	345,745	100	11,356	100	21,164	100	22,181	100	21,209	100	212,032	100
Year entered advanced study												
1963	3,708	1	39	*	490	2	1,122	5	21	1	1,161	1
1964	14,374	4	401	4	1,092	5	3,436	16	888	4	6,515	3
1965	115,048	33	4,664	41	10,015	48	10,349	47	9,025	42	67,203	31
1966	70,874	21	2,555	22	3,545	17	3,024	14	3,519	16	46,196	22
1967	39,351	11	1,099	10	1,742	8	1,184	5	2,494	12	24,267	11
1968	31,837	9	480	4	1,256	6	515	2	1,277	6	22,534	11
1969	27,721	8	1,331	12	1,107	5	923	4	1,920	9	17,372	8
1970	23,086	7	485	4	1,036	5	804	4	903	4	16,670	8
1971	18,322	5	433	4	539	3	680	3	1,395	7	11,921	6
Total	344,322	100	11,487	100	20,821	100	22,037	100	21,442	100	213,837	100

Table 102

Year Received Bachelor's Degree and Year Entered Advanced Study, by Graduate Field; 1966 Freshmen Who Ever Enrolled for Advanced Study

Year	Total Ever Enrolled for Advanced Study		Biological Sciences		Physical Sciences and Math		Health Fields		Social Sciences		Other Fields	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Year received bachelor's degree:												
1968	6,814	2	84	1	40	*	1,213	4	98	1	1,633	1
1969	24,324	7	280	3	1,239	7	3,173	10	1,167	5	14,953	7
1970	268,949	79	9,447	89	13,832	82	25,063	78	18,199	84	175,893	81
1971	38,828	12	835	8	1,772	11	2,678	8	2,150	10	24,176	11
Total	338,915	100	10,646	100	16,883	100	32,127	100	21,614	100	216,655	100
Year entered advanced study:												
1968	4,837	2	23	*	19	*	1,822	6	0	0	562	*
1969	15,127	5	93	1	790	5	3,634	11	794	4	7,414	4
1970	175,544	53	6,945	64	10,521	64	19,929	62	12,697	60	110,878	52
1971	133,423	41	3,741	34	5,189	32	6,872	21	7,747	37	96,422	45
Total	328,931	100	10,900	100	16,519	100	32,257	100	21,238	100	215,276	100

Table 103

Year Entered Advanced Study, by Advanced Study Index: Both Cohorts
(In Percentages)

Year	Total Ever Enrolled For Advanced Study	Currently Enrolled	Interrupted Studies		Studies Completed		
			Hold No Advanced Degree	Hold a Master's Degree	Hold a Ph.D. or Professional Degree	Hold a Master's Degree	Hold No Advanced Degree
			1961 Cohort				
1963	1	*	*	1	4	1	2
1964	4	2	1	5	12	3	4
1965	33	26	16	37	63	39	27
1966	21	18	19	21	13	27	21
1967	11	9	11	14	6	12	17
1968	9	8	13	12	2	8	11
1969	8	8	13	9	*	7	9
1970	7	15	14	3	*	2	5
1971	5	15	13	0	0	*	4
Total	100	100	100	100	100	100	100
N	344,322	26,765	101,205	43,589	52,918	82,584	37,241
			1966 Cohort				
1968	2	1	1	2	-	3	11
1969	5	4	3	14	-	12	9
1970	53	52	49	83	-	84	46
1971	41	44	48	1	-	1	34
Total	100	100	100	100	-	100	100
N	328,931	224,872	59,608	10,804	-	14,437	19,207

Table 104

Pattern of Graduate Enrollment Between 1965 and 1971:
Selected Subgroups of 1961 Freshmen Who Ever Enrolled for Advanced Study

Enrollment Status	Number Enrolled in Each Year						
	1965	1966	1967	1968	1969	1970	1971
Total, ever enrolled for advanced study							
Graduate student, full-time	68,896	68,813	56,118	39,831	35,365	30,614	22,181
Graduate student, part-time	5,026	6,420	6,888	7,923	7,730	7,446	3,563
Medical, dental, or veterinary student	11,094	12,473	12,020	10,038	3,597	1,843	1,464
Total, currently enrolled							
Graduate student, full-time	5,489	6,855	6,524	6,234	8,461	12,887	22,181
Graduate student, part-time	968	921	1,450	1,162	1,341	1,646	3,563
Medical, dental, or veterinary student	384	415	361	538	476	672	1,464
Total, studies completed with a Ph.D. or Prof. degree							
Graduate student, full-time	25,471	27,872	27,328	17,792	11,574	4,580	-
Graduate student, part-time	1,134	962	996	1,256	1,053	793	
Medical, dental, or veterinary student	10,482	11,946	11,524	9,281	2,892	582	-
Total, studies completed with Master's degree							
Graduate student, full-time	17,558	17,783	8,525	5,843	6,103	4,391	-
Graduate student, part-time	1,399	2,150	2,241	1,690	1,414	1,058	-
Medical, dental, or veterinary student	42	19	-	-	-	-	-

Table 105

Pattern of Graduate Enrollment Between 1965 and 1971:
1961 Freshmen Who Enrolled for Advanced Study by Graduate Field

	Number Enrolled in Each Year						
Enrollment Status	1965	1966	1967	1968	1969	1970	1971
Biological Sciences							
Total, ever enrolled							
Graduate student, full-time	3,519	4,371	4,559	3,820	3,743	3,543	2,488
Graduate student, part-time	114	282	382	152	554	215	113
Post doctoral student	0	0	22	288	333	952	1,021
Total, studies completed with Ph.D. Degree							
Graduate student, full-time	1,701	2,160	2,490	2,164	1,733	910	0
Graduate student, part-time	76	67	51	51	5	5	0
Post doctoral student	0	0	22	288	333	952	1,021
Total, studies completed with Master's degree							
Graduate student, full-time	493	563	300	226	179	348	0
Graduate student, part-time	0	151	151	11	0	0	0
Physical Sciences and Mathematics							
Total ever enrolled							
Graduate student, full-time	8,640	8,440	7,734	7,215	5,407	3,984	2,773
Graduate student, part-time	575	500	597	476	537	409	253
Post doctoral student	0	16	23	76	669	1,002	972
Total, studies completed with Ph.D. degree							
Graduate student, full-time	4,422	4,569	4,541	4,183	2,878	818	0
Graduate student, part-time	154	83	148	87	75	51	0
Post doctoral student	0	16	23	76	669	1,002	972
Total, studies completed with Master's degree							
Graduate student, full-time	1,300	1,052	431	244	234	278	0
Graduate student, part-time	141	169	90	68	15	20	0
Social Sciences							
Total, ever enrolled							
Graduate student, full-time	7,832	8,522	7,202	5,638	4,336	3,756	2,149
Graduate student, part-time	263	279	193	320	412	306	339
Post doctoral student	17	0	6	16	36	160	129
Total, studies completed with Ph.D. degree							
Graduate student, full-time	2,326	2,624	2,828	2,575	1,632	820	0
Graduate student, part-time	66	64	59	175	190	48	0
Post doctoral student	17	0	6	16	36	160	129
Total, studies completed with Master's degree							
Graduate student, full-time	2,030	1,806	940	448	178	98	0
Graduate student, part-time	4	48	44	18	50	67	0
All Other Fields							
Total ever enrolled							
Graduate student, full-time	41,597	42,519	33,144	20,745	19,682	17,346	13,466
Graduate student, part-time	3,192	4,368	5,067	5,239	5,526	5,363	2,616
Post doctoral student	0	0	41	194	89	109	173
Total, studies completed with Ph.D.							
Graduate student, full-time	15,928	17,834	16,600	8,194	5,006	1,943	0
Graduate student, part-time	513	601	590	852	740	666	0
Post doctoral student	0	0	41	194	89	109	173
Total, studies completed with Master's degree							
Graduate student, full-time	13,135	13,818	6,566	4,685	5,229	3,447	0
Graduate student, part-time	1,221	1,748	1,913	1,443	1,242	771	0

Table 105 (Continued)

Pattern of Graduate Enrollment Between 1965 and 1971:
1961 Freshmen Who Enrolled for Advanced Study by Graduate Field

Enrollment Status	Number Enrolled in Each Year 1965	1966	1967	1968	1969	1970	1971
			Health Fields				
Total, ever enrolled							
Graduate student, full-time	2,111	1,860	1,830	985	708	830	496
Graduate student, part-time	370	242	171	181	135	160	82
Medical, dental, or veterinary student	10,820	12,365	11,898	9,804	3,329	1,308	1,464
Medical intern or resident	266	266	430	2,165	6,080	6,565	5,749
Post doctoral student	0	3	32	38	702	770	635
Total, studies completed with Ph.D. or professional degree							
Graduate student, full-time	870	482	670	530	189	13	0
Graduate student, part-time	324	147	148	92	43	23	0
Medical, dental, or veterinary student	10,406	11,946	11,524	9,281	2,892	582	0
Medical intern or resident	266	266	430	2,135	6,069	6,558	5,749
Post doctoral student	0	3	32	38	702	770	635
Total, studies completed with master's degree							
Graduate student, full-time	244	266	135	127	135	50	0
Graduate student, part-time	28	28	7	9	0	0	0

Table 106

Highest Degree Held, by Graduate Field: 1961 and 1966
Freshmen Who Ever Enrolled for Advanced Study

Degree	Total Ever Enrolled for Advanced Study Number	Percent	Biological Sciences Number	Percent	Physical Sciences and Math Number	Percent	Health Fields Number	Percent	Social Sciences Number	Percent	Other Fields Number	Percent
					1961 Cohort							
Bachelor's or less	167,537	46	3,859	33	6,786	32	3,235	14	7,595	35	85,679	39
Master's	141,699	39	4,974	42	9,332	43	3,131	13	10,736	49	107,363	49
Ph.D. or equivalent	19,573	5	2,932	25	5,448	25	343	2	3,426	16	7,126	3
M.D.	11,295	3	0	0	0	0	11,295	48	0	0	0	0
D.D.S. or D.V.M.	5,402	2	0	0	0	0	5,402	23	0	0	0	0
L.L.B. or J.D.	20,440	6	0	0	3	*	34	*	191	1	20,212	9
Other	277	*	5	*	0	0	106	*	0	0	166	*
Total	366,222	100	11,770	100	21,569	100	23,546	100	21,948	100	220,545	100
					1966 Cohort							
Bachelor's or less	364,590	91	10,823	96	16,276	92	34,364	94	20,460	87	204,738	88
Master's	34,213	8	403	4	1,480	8	1,614	4	3,039	13	26,420	11
Ph.D. or professional	1,698	*	0	0	12	*	118	*	0	0	1,321	1
Other	940	*	52	1	0	0	646	2	30	*	211	*
Total	401,441	100	11,278	100	17,767	100	36,742	100	23,530	100	232,691	100

Table 107

Highest Degree Planned Ever, by Graduate Field:
1961 and 1966 Freshmen Who Ever Enrolled for Advanced Study

Degree	Total Ever Enrolled for Advanced Study		Biological Sciences		Physical Sciences and Math		Health Fields		Social Sciences		Other Fields	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
					1961 Cohort							
Bachelor's or less	47,640	13	0	0	6	*	243	1	12	*	1,617	1
Master's	175,328	48	4,088	35	9,190	43	2,843	12	8,619	39	134,240	61
Ph.D. or equivalent	89,342	24	6,813	58	11,751	54	1,810	8	12,199	56	53,515	24
M.D.	14,893	4	768	6	178	1	12,174	52	201	1	1,238	1
D.D.S. or D.V.M.	6,963	2	65	1	16	1	6,405	27	0	0	438	*
L.L.B. or J.D.	32,086	9	56	1	427	2	0	0	917	4	29,578	13
Other	99	*	0	0	0	0	71	*	0	0	27	*
Total	366,350	100	11,789	100	21,569	100	23,546	100	21,948	100	220,654	100
					1966 Cohort							
Bachelor's or less	64,434	16	5	*	43	*	2,348	6	59	*	3,815	2
Master's	173,287	43	3,088	27	6,483	36	6,486	17	7,806	33	132,970	57
Ph.D. or equivalent	99,993	25	6,485	58	10,729	60	2,684	7	14,282	61	61,819	26
M.D.	20,305	5	1,435	13	270	2	17,323	46	53	*	867	*
D.D.S. or D.V.M.	9,826	2	243	2	0	0	8,137	22	0	0	1,282	*
L.L.B. or J.D.	36,196	9	21	*	263	2	114	*	1,365	6	32,882	14
Other	1,132	*	0	0	0	0	652	2	0	0	480	*
Total	404,042	100	11,278	100	17,788	100	37,744	100	23,564	100	234,115	100

Table 108

Highest Degree Planned by 1975, by Graduate Field:
1961 and 1966 Freshmen Who Ever Enrolled for Advanced Study

Degree	Total Ever Enrolled for Advanced Study		Biological Sciences		Physical Sciences and Math		Health Fields		Social Sciences		Other Fields	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
					1961 Cohort							
Bachelor's or less	63,231	17	273	2	718	3	775	3	1,144	5	10,923	5
Master's	193,952	53	4,783	41	10,678	50	3,293	14	10,122	46	149,527	68
Ph.D. or equivalent	61,042	17	6,031	51	9,790	45	1,026	4	9,899	45	32,352	15
M.D.	13,273	4	632	5	60	*	11,992	51	87	*	251	*
D.D.S. or D.V.M.	6,678	2	44	*	16	*	6,389	27	0	0	216	*
L.L.B. or J.D.	29,077	8	26	*	308	1	0	0	696	3	27,358	12
Other	99	*	0	0	0	0	71	*	0	0	27	*
Total	366,350	100	11,789	100	21,569	100	23,546	100	21,948	100	220,654	100
					1966 Cohort							
Bachelor's or less	81,960	20	229	2	475	3	4,162	11	1,269	5	12,605	5
Master's	222,273	55	6,503	58	10,655	60	7,667	20	12,514	53	171,443	73
Ph.D. or equivalent	43,499	11	4,242	38	6,586	37	1,085	3	9,423	40	20,475	9
M.D.	16,957	4	233	2	35	*	16,332	43	0	0	280	*
D.D.S. or D.V.M.	8,183	2	71	1	0	0	7,819	21	0	0	219	*
L.L.B. or J.D.	29,948	7	0	0	36	*	28	*	359	2	28,522	12
Other	1,132	*	0	0	0	0	652	2	0	0	480	*
Total	403,952	100	11,278	100	17,788	100	37,745	100	23,565	100	234,025	100

Table 109

Graduate Major of 1961 and 1966 Freshmen Who Have Completed Their Studies

	1961 Cohort						1966 Cohort			
	Hold a Ph.D. or Professional Degree		Hold a Master's Degree		Hold No Advanced Degree*		Hold a Master's Degree		Hold No Advanced Degree*	
Major	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Biological sciences	2,998	6	2,006	2	0	0	23	*	5	1
Health fields	15,561	29	1,386	2	157	9	810	5	407	38
Physical sciences and Mathematics	5,396	10	4,341	5	6	*	592	4	43	4
Social sciences	2,884	5	3,488	4	12	1	745	5	0	0
Law	18,842	35	12	*	22	1	190	1	106	10
Education	842	2	22,648	28	482	29	4,812	31	121	11
Engineering	2,515	5	5,925	7	0	0	1,082	7	0	0
Arts and humanities	1,883	4	10,875	13	149	9	1,465	9	174	16
Business	655	1	13,069	16	385	23	2,846	18	27	2
All other fields	2,228	4	17,818	22	451	27	3,189	20	197	18
Total	53,803	100	81,569	100	1,663	100	15,753	100	1,080	100

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*The large majority of those with no advanced degree did not respond to the question on graduate field. These percentages are consequently based on the few who did indicate a field.

Table 110

Amount of Advanced Study Completed, by Graduate Field 1961 Freshmen Who Completed Their Studies (In Percentages)

Amount	Total Completed Studies At Level Indicated	Biological Sciences	Physical Sciences and Mathematics	Health Fields	Social Sciences	Other Fields
			Completed at the Master's Level			
One semester or less	1	0	4	0	0	*
One year	37	10	16	32	20	40
Two years	49	69	62	58	63	47
Three years	9	10	15	9	14	8
Four years or more	5	10	3	1	2	4
Total	100	100	100	100	100	100
N	85,299	1,986	4,332	1,386	3,993	69,572
			Completed at the Doctoral[a] Level			
One semester	*	0	0	*	0	*
One year	*	0	0	*	0	0
Two years	1	0	*	*	1	1
Three years	35	5	8	1	14	68
Four years or more	64	95	92	98	85	31
Total	100	100	100	100	100	100
N	55,614	2,926	5,385	16,497	3,487	27,021

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[a] Ph.D., M.D., D.D.S., D.V.M., L.L.B., J.D.

Table 111

Year Received Master's Degree, by Graduate Field: 1961 Freshmen Who Have Completed Their Studies at the Master's Level

Year	Total, Completed studies with master's		Biological Sciences		Physical Sciences and Math		Health Fields		Social Sciences		Other Fields	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1965	743	1	30	2	265	7	64	5	5	*	341	1
1966	8,941	11	121	6	494	12	132	10	315	8	7,699	12
1967	17,304	22	611	31	814	20	312	23	1,773	46	13,073	20
1968	13,898	17	284	14	545	14	199	14	446	12	11,863	18
1969	12,722	16	135	7	414	10	344	25	434	11	10,827	17
1970	13,973	18	422	21	645	16	213	15	211	6	11,679	18
1971	12,457	16	396	20	860	21	124	9	669	17	9,796	15
Total	80,038	100	1,999	100	4,037	100	1,388	100	3,853	100	65,278	100

Table 11[illegible]

Year Received Graduate Degrees, by Graduate Field: 1961 Freshmen Who Have Completed Their Studies at the Doctoral Level

Year	Total, Completed Studies at the Doctoral Level		Biological Sciences		Physical Sciences and Math		Health Fields		Social Sciences		Other Fields	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Year received master's degree												
1963	238	2	0	0	81	3	0	0	17	1	141	2
1964	403	3	6	*	27	1	182	20	0	0	188	3
1965	1,343	9	0	0	442	17	244	27	103	4	528	8
1966	2,807	19	206	14	184	7	38	4	441	18	1,887	28
1967	5,544	38	727	48	1,290	48	54	6	876	35	2,538	37
1968	2,444	17	531	35	299	11	55	6	673	27	872	13
1969	1,034	7	23	2	292	11	67	7	392	16	252	4
1970	584	4	8	*	48	2	184	20	28	1	288	4
1971	280	2	0	0	9	*	89	10	0	[illegible]	162	2
Total	14,677	100	1,501	100	2,672	100	913	100	2,530	100	6,856	100
Year received Ph.D. degree												
1967	582	3	22	1	154	3	0	0	7	*	393	5
1968	2,899	14	181	6	353	7	286	24	144	4	1,881	23
1969	4,528	21	661	23	1,283	24	596	50	505	15	1,454	18
1970	6,253	29	1,739	42	2,047	39	275	23	1,022	31	1,635	20
1971	6,988	33	823	28	1,451	27	36	3	1,613	49	2,947	36
Total	21,250	100	2,926	100	5,289	100	1,193	100	3,291	100	8,310	100
Year received professional degree												
1967	2,851	9	0	0	0	0	1,246	8	4	3	1,601	9
1968	13,080	39	0	0	3	0	3,334	22	22	13	9,721	54
1969	10,559	32	0	0	7	0	7,172	47	19	12	3,361	19
1970	4,570	14	0	0	0	0	[illegible]	18	119	73	1,732	10
1971	2,457	7	0	0	0	0	[illegible]	6	0	0	1,609	9
Total	33,516	100	0	0	10	0	15,318	100	164	100	18,024	100

Table 113

Graduate Major of 1961 Freshmen Who Have Not Completed Their Advanced Study

Major	Currently Enrolled		Not Enrolled, Hold No Advanced Degree		Not Enrolled, Hold a Master's Degree	
	Number	Percent	Number	Percent	Number	Percent
Biological sciences	2,673	10	2,734	3	1,521	4
Health fields	1,554	6	1,974	2	1,313	3
Physical sciences and mathematics	3,280	12	5,946	6	2,858	7
Social sciences	2,137	8	5,827	6	3,616	8
Law	2,727	10	3,570	4	362	1
Education	1,920	7	22,212	24	11,770	28
Engineering	1,581	6	3,798	4	1,614	4
Arts and humanities	4,800	18	12,576	14	6,488	15
Business	2,090	8	14,799	16	4,734	11
All other fields	3,418	13	18,220	20	8,429	20
Total	26,180	100	91,657	100	42,706	100

Table 114

Graduate Major of 1966 Freshmen Who Have Not Completed Their Advanced Study

Major	Currently Enrolled		Not Enrolled, Hold No Advanced Degree		Not Enrolled, Hold a Master's Degree	
	Number	Percent	Number	Percent	Number	Percent
Biological sciences	9,918	4	1,288	2	207	2
Health fields	27,004	12	4,490	7	464	4
Physical sciences and mathematics	13,822	6	3,091	5	275	2
Social sciences	17,308	8	4,604	7	926	8
Law	24,368	11	3,124	5	0	0
Education	45,079	20	16,571	26	2,675	24
Engineering	9,492	4	7,290	4	583	5
Arts and humanities	30,695	13	9,316	14	1,601	15
Business	17,436	8	9,017	14	1,301	12
All other fields	33,835	15	10,397	16	2,920	27
Total	228,957	100	64,187	100	10,952	100

Table 115

Current Advanced Study Enrollment, by Sex, Race, and Graduate Major: Both Cohorts

Subgroup	1961 Cohort Number	1961 Cohort Per Cent	1966 Cohort Number	1966 Cohort Per Cent
Total currently enrolled for advanced study	27,209	100	243,024	100
Men	20,098	74	150,185	62
Women	7,110	26	92,840	38
Total by race				
White	16,109	98	225,355	93
Black	291	2	9,269	4
Oriental	56	*	2,294	1
American Indian	34	*	470	*
Other	10	*	4,104	2
Total by field				
Biological sciences	2,601	10	9,755	4
Physical sciences and mathematics	3,026	12	13,787	6
Health fields	2,042	8	31,650	13
Social sciences	2,488	9	17,290	7
Other fields	16,083	59	159,942	66
Unknown	968	4	10,600	4

Table 116

Amount of Advanced Study Completed, by Graduate Field:
1961 Freshmen Who Have Not Completed Their Advanced Study
(In Percentages)

Amount	Biological Sciences	Physical Sciences and Mathematics	Health Fields	Social Sciences	Other Fields
		Currently Enrolled			
None	0	0	0	0	*
One semester	*	3	11	6	21
One year	6	7	23	8	23
Two years	31	12	11	16	21
Three years	12	15	22	32	13
Four years or more	51	63	33	39	21
Total	100	100	100	100	100
N	2,588	3,026	2,042	2,488	15,800
		Interrupted Studies, Hold no Advanced Degree			
None	2	4	5	5	10
One semester	22	30	42	27	37
One year	47	42	18	40	34
Two years	7	20	12	10	16
Three years	21	1	11	12	2
Four years or more	1	3	12	7	2
Total	100	100	100	100	100
N	2,734	5,946	1,881	7,021	73,492
		Interrupted Studies, Hold Master's Degree			
None	0	0	5	0	0
One semester	0	0	0	0	0
One year	5	14	32	14	23
Two years	37	41	62	33	45
Three years	15	9	1	24	16
Four years or more	43	37	6	29	16
Total	100	100	100	100	100
N	1,521	2,858	1,313	4,739	31,699

Table 117

Amount of Advanced Study Completed, by Graduate Field: 1966 Freshmen Who Have Not Completed Their Advanced Study (In Percentages)

Amount	Biological Sciences	Physical Sciences and Mathematics	Health Fields	Social Sciences	Other Fields
		Currently Enrolled			
None	2	2	8	5	4
One semester	33	28	16	32	50
One year	51	54	47	53	36
Two years	14	9	17	8	8
More than two years	1	6	12	1	1
Total	100	100	100	100	100
N	9,648	13,610	31,073	16,631	155,631
		Interrupted Studies, Hold No Advanced Degree			
None	12	22	21	14	22
One semester	18	45	32	40	44
One year	45	31	36	30	22
Two years	8		4	6	4
More than [illegible] years	17	2	7	10	8
Total	100	100	100	100	100
N	1,288	3,066	4,461	4,432	49,378
		Interrupted Studies, Hold Master's Degree			
None	0	0	0	0	2
One semester	0	0	0	0	0
One year	100	58	45	72	70
Two years	0	42	55	25	26
More than two years	0	0	0	3	2
Total	100	100	100	100	100
N	207	274	464	926	9,010

Table 118

Highest Degree Now Held, by Graduate Field: 1961 and 1966 Freshmen Who Are Currently Enrolled for Advanced Study (In Percentages)

Degree	Total, Currently Enrolled	Biological Sciences	Physical Sciences and Mathematics	Health Fields	Social Sciences	Other Fields
		1961 Cohort				
None	0	0	0	0	0	*
Associate	0	0	0	0	0	0
Bachelor's	53	43	28	54	21	64
Master's	43	56	70	21	75	34
Ph.D. or professional	3	*	2	20	4	1
Other	1	*	0	5	0	1
Total	100	100	100	100	100	100
N	27,072	2,583	3,026	2,042	2,488	15,974
		1966 Cohort				
None	2	0	*	13	1	*
Associate	*	0	0	2	*	*
Bachelor's	94	98	95	82	91	97
Master's	3	2	5	1	8	3
Ph.D. or professional	*	0	0	*	0	*
Other	*	1	0	2	*	*
Total	100	100	100	100	100	100
N	240,317	9,755	13,767	30,571	17,255	158,518

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Table 119

Highest Degree Planned Ever, by Graduate Field:
1961 Freshmen Who Have Not Completed Their Advanced Study
(In Percentages)

Degree	Biological Sciences	Physical Sciences and Mathematics	Health Fields	Social Sciences	Other Fields
		Currently Enrolled			
Bachelor's	0	0	4	0	1
Master's	12	5	10	4	34
Ph.D. or equivalent	86	91	2	87	45
M.D.	1	1	41	1	4
D.D.S. or D.V.M.	*	0	39	0	0
L.L.B. or J.D.	1	2	0	8	16
Other	0	0	4	0	*
Total	100	100	100	100	100
N	2,601	3,026	2,042	2,488	16,083
		Interrupted Studies, Hold No Advanced Degree			
Bachelor's	0	0	0	0	0
Master's	65	79	63	62	80
Ph.D.	20	19	11	34	14
M.D.	16	1	15	0	*
D.D.S. or D.V.M.	0	*	11	0	*
L.L.B. or J.D.	*	1	0	4	6
Other	0	0	0	0	0
Total	100	100	100	100	100
N	2,734	5,946	1,974	7,054	73,948
		Interrupted Studies, Hold Master's Degree			
Bachelor's	0	0	0	0	0
Master's	0	0	0	0	0
Ph.D. or equivalent	88	89	98	91	90
M.D.	6	*	2	4	1
D.D.S. or D.V.M.	4	0	0	0	1
L.L.B. or J.D	2	11	0	5	9
Other	0	0	0	0	0
Total	100	100	100	100	100
N	1,521	2,858	1,313	4,739	32,275

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Table 120

Progress in Meeting Academic Requirements, by Sex: 1961 Freshmen Who Ever Enrolled for Advanced Study
(In Percentages)

Requirements	Percentage completing each requirement: Total (N=191,137)	Men (N=118,221)	Women (N=72,916)	Percentage currently working on each requirement: Total (N=191,137)	Men (N=118,221)	Women (N=72,916)
Master's level requirements	21	23	16	42	41	44
Course work requirements	17	18	16	30	30	30
Residence requirements	16	17	15	5	6	4
Language or tool requirements	14	15	14	5	6	4
General qualifying exams passed	20	21	18	7	8	6
Dissertation topic approved	10	11	8	6	7	4
Draft of dissertation submitted	2	2	2	*	*	0
Dissertation approved	1	*	1	5	6	4

Table 121

Progress in Meeting Academic Requirements Among 1961 Freshmen by Advanced Study Status
(In Percentages)

Requirements	Percentage Completing Each Requirement: Currently Enrolled For Advanced Study (N=26,317)	Interrupted, Hold No Advanced Degree (N=90,182)	Interrupted, Hold a Master's Degree (N=19,767)	Hold No Advanced Degree, Do Not Plan One (N=29,509)	Percentage Working on Each Requirement: Currently Enrolled For Advanced Study (N=26,317)	Interrupted, Hold No Advanced Degree (N=90,182)	Interrupted, Hold a Master's Degree (N=19,767)	Hold No Advanced Degree, Do Not Plan One (N=29,509)
Master's level requirements	43	4	95	1	34	68	4	19
Course work requirements	35	11	40	10	45	36	35	12
Residence requirements	37	11	38	7	13	5	8	1
Language or tool requirements	33	10	36	4	11	4	12	1
General qualifying exams passed	37	18	34	8	14	7	14	1
Dissertation topic approved	27	6	24	1	15	4	14	*
Dissertation approved	*	*	*	*	11	4	14	*

Table 122

Likelihood of Completing Studies, by Sex and Race:
1961 Freshmen Who Ever Enrolled for Advanced Study
(In Percentages)

Status and Likelihood	Total (N=333,524)	Men (N=213,307)	Women (N=120,217)	Race White (N=214,495)	Race Black (N=4,871)
Studies already completed	49	50	45	51	41
Studies not completed:					
Will definitely finish	23	26	19	21	35
Will probably finish	16	14	22	16	24
May not finish	6	6	6	6	0
Unlikely to receive degree	6	5	7	6	0
Total	100	100	100	100	100

Table 123

Likelihood of Completing Studies, by Graduate Field:
1961 Freshmen Who Have Not Completed Their Advanced Study
(In Percentages)

Status and Likelihood	Biological Sciences	Physical Sciences and Mathematics	Health Fields	Social Sciences	Other Fields
	Currently Enrolled				
Studies Now Completed	1	1	2	6	3
Will definitely finish	79	56	88	81	80
Will probably finish	18	37	10	13	16
May not finish	3	5	0	0	1
Unlikely to receive degree	0	0	0	0	*
Total	100	100	100	100	100
N	2,596	3,000	2,042	2,488	15,910
	Interrupted Studies, Hold No Advanced Degree				
Studies Now Completed	0	1	14	1	2
Will definitely finish	36	38	38	49	40
Will probably finish	51	44	43	41	42
May not finish	9	15	5	6	12
Unlikely to receive degree	3	3	1	3	3
Total	100	100	100	100	100
N	2,665	5,724	1,679	6,610	6,554

Table 124

Experiences in Graduate or Professional School, by Sex and Race: 1961 Cohort
(In Percentages)

Experience	Total (N=354,796)	Men (N=226,887)	Women (N=127,910)	Race White (N=225,332)	 Black (N=4,904)
Had many informal talks with faculty members	46	50	40	47	58
Had major responsibility for conduct of research	28	30	24	30	24
Had trouble concentrating	17	19	13	18	13
Failed a course	5	7	3	6	4
Graduated (or expect to graduate) with honors	16	17	14	16	11
Had a major concern for meeting expenses	29	31	25	29	20
Received much less financial assistance than I needed	11	12	9	11	10
A fellowship was not renewed when expected	1	2	1	2	0
Worked (or expect to work) on thesis off-campus while employed full-time	16	16	17	16	27
Worked (or expect to work) on thesis as part of my employment on a research project	8	9	5	8	15
Could adjust the program of study to fit my own interests	43	44	42	45	55
Had good amount of study-related experience	42	42	42	43	46
Good assistance from advisor	21	22	18	22	26
Encouraged by spouse	44	47	39	44	42
Had second specialty	15	16	14	16	20

Table 125

Experiences in Graduate or Professional School.
by Graduate Field: 1961 Cohort
(In Percentages)

Experience	Total Ever Enrolled (N=346,411)	Biological Sciences (N=11,690)	Physical Sciences and Mathematics (N=21,183)	Health Fields (N=23,158)	Social Sciences (N=21,384)	All other Fields (N=211,831)
Had many informal talks with faculty members	46	75	54	59	59	46
Had major responsibility for conduct of research	28	67	45	31	44	27
Had trouble concentrating	17	18	21	10	20	17
Failed a course	5	10	9	6	7	4
Graduated (or expect to graduate) with honors	16	16	15	26	20	18
Had a major concern for meeting expenses	29	32	28	38	34	30
Received much less financial assistance than I needed	11	11	7	16	16	11
A fellowship was not renewed when expected	1	3	2	1	1	2
Worked (or expect to work) on thesis off-campus while employed full-time	16	14	14	5	28	19
Worked (or expect to work) on thesis as part of my employment on a research project	8	26	22	6	13	6
Could adjust the program of study to fit my own interests	44	59	49	30	52	48
Had good amount of study-related experience	42	59	37	57	49	43
Good assistance from advisor	21	49	36	16	37	21
Encouraged by spouse	44	55	53	51	48	47
Had second specialty	15	18	15	8	24	16

Table 126

Experiences in Graduate or Professional School,
by Advanced Study Index: 1961 Cohort
(In Percentages)

Experience	Total, Ever Enrolled (N=346,411)	Currently Enrolled (N=26,891)	Interrupted Studies: Hold no Advanced Degree (N=94,303)	Interrupted Studies: Hold Master's Degree (N=43,648)	Studies Completed: Hold Ph.D. Professional Degree (N=55,569)	Studies Completed: or Hold Master's Degree (N=84,860)	Studies Completed: Hold no Advanced Degree (N=41,141)
Had many informal talks with faculty members	46	62	34	66	62	46	20
Had major responsibility for conduct of research	28	41	16	37	47	31	7
Had trouble concentrating	17	25	22	15	11	13	22
Failed a course	5	7	6	4	8	2	8
Graduated (or expect to graduate) with honors	16	17	10	25	27	18	2
Had a major concern for meeting expenses	29	40	28	37	33	25	19
Received much less financial assistance than I needed	11	19	10	15	12	8	10
A fellowship was not renewed when expected	1	3	1	2	3	1	*
Worked (or expect to work) on thesis off-campus while employed full-time	16	9	20	30	6	20	4
Worked (or expect to work) on thesis as part of my employment on a research project	8	17	4	11	13	6	1
Could adjust the program of study to fit my own interests	44	55	38	54	45	51	23
Had good amount of study-related experience	42	46	35	54	51	44	24
Good assistance from advisor	21	30	6	39	30	28	2
Encouraged by spouse	44	47	43	49	58	45	20
Had second specialty	15	21	12	24	14	16	7

Table 127

Serious Obstacles to Completion of Graduate Study, by Sex and Race: 1961 Cohort
(In Percentages)

Obstacle	Total (N=354,796)	Men (N=226,887)	Women (N=127,910)	Race: White (N=225,332)	Race: Black (N=4,904)
Loss of fellowship, scholarship, traineeship	1	1	1	1	0
Other financial problems	15	15	14	14	26
Family obligations	18	15	24	18	19
Major advisor left my school	2	2	2	2	0
I transferred from one school to another	6	6	6	6	6
Changes in academic interests	10	11	9	10	11
Loss of interest in studies	14	15	13	15	6
Making up prerequisites	6	6	5	6	5
Poor courses	10	10	9	10	2
Duties involved in a teaching assistantship	3	3	2	3	7
Duties involved in a research assistantship	1	1	1	1	0
Inaccessibility of faculty	4	4	5	5	3
Administration of stipend	1	*	1	1	0
Difficulties with qualifying exams	3	4	3	4	5
Difficulties with language requirements	2	3	2	2	8
Writing dissertation off-campus while employed full-time	6	6	6	6	11
Other dissertation difficulties (topic too broad, complex analysis, etc.)	4	5	3	5	*
Other	11	11	12	11	17

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Table 128

Serious Obstacles to Completion of Graduate Study, by Graduate Field: 1961 Cohort
(In Percentages)

Obstacle	Total Ever Enrolled (N=346,411)	Biological Sciences (N=11,690)	Physical Sciences and Mathematics (N=21,183)	Health Fields (N=23,158)	Social Sciences (N=21,384)	All Other Fields (N=211,831)
Loss of fellowship, scholarship, traineeship	1	1	2	2	2	1
Other financial problems	15	9	14	7	22	14
Family obligations	18	17	16	7	17	18
Major advisor left my school	2	4	4	1	5	2
I transferred from one school to another	6	10	9	2	7	5
Changes in academic interests	10	9	15	4	12	9
Loss of interest in studies	14	13	19	2	16	11
Making up prerequisites	6	8	6	3	6	6
Poor courses	10	9	9	5	9	10
Duties involved in a teaching assistantship	3	9	8	1	5	3
Duties involved in a research assistantship	1	4	1	*	2	1
Inaccessibility of faculty	4	3	6	1	8	4
Administration of stipend	1	1	*	1	1	1
Difficulties with qualifying exams	3	9	9	1	6	3
Difficulties with language requirements	2	6	3	1	7	2
Writing dissertation off-campus while employed full-time	6	4	7	2	14	7
Other dissertation difficulties (topic too broad, complex analysis, etc.)	4	12	9	1	14	4
Other	11	13	10	4	9	11

Table 129

Serious Obstacles to Completion of Graduate Study by Advanced Study Index: 1961 Cohort
(In Percentages)

Obstacle	Total, Ever Enrolled (N=346,411)	Currently Enrolled (N=26,891)	Interrupted Studies: Hold No Advanced Degree (N=94,303)	Interrupted Studies: Hold Master's Degree (N=43,648)	Studies Completed: Hold Ph.D. or Professional Degree (N=55,569)	Studies Completed: Hold Master's Degree (N=84,860)	Studies Completed: Hold No Advanced Degree (N=41,141)
Loss of fellowship, scholarship, traineeship	1	2	1	3	1	1	*
Other financial problems	15	17	27	14	4	7	16
Family obligations	18	11	38	16	3	8	22
Major advisor left my school	2	4	1	4	2	2	*
I transferred from one school to another	6	8	10	4	3	3	4
Changes in academic interests	10	15	15	11	3	5	16
Loss of interest in studies	14	14	21	9	3	7	33
Making up prerequisites	6	6	9	6	1	4	7
Poor courses	10	7	13	10	4	8	13
Duties involved in a teaching assistantship	3	9	2	7	3	2	1
Duties involved in a research assistantship	1	4	1	2	1	*	*
Inaccessibility of faculty	4	4	5	7	2	4	5
Administration of stipend	1	1	1	1	*	*	*
Difficulties with qualifying exams	3	8	5	4	2	2	2
Difficulties with language requirements	2	5	2	4	2	1	1
Writing dissertation off-campus while employed full-time	6	2	9	12	3	5	2
Other dissertation difficulties (topic too broad, complex analysis, etc.)	4	13	3	8	4	3	1
Other	11	9	19	9	4	6	18

Table 130

Reasons for Interrupting Advanced Study, by Sex and Race
1961 Freshmen

Reasons	Total (N=166,020)	Men (N=96,671)	Women (N=69,350)	Race White (N=103,839)	Race Black (N=2,622)
No adequate program where I live (d)	12	10	15	13	8
Took a job	42	44	38	41	60
Changed my career plans	20	24	15	19	18
Decided I did not need a further degree	12	12	13	13	14
Wanted to reconsider my goals and interests	26	29	23	28	19
Tired of being a student	35	39	31	37	28
Home/child care responsibilities	28	17	44	28	31
No fellowship (scholarship, grant) offered	5	4	6	5	17
Fellowship, etc., terminated	2	2	1	1	0
Other financial problems	16	16	17	17	18
Spouse discouraged me	3	2	4	3	0
Others discouraged me	2	2	2	2	3
Course or examination difficulties	8	10	4	9	2
Thesis difficulties	5	4	5	5	1
Dissatisfied with the program	15	16	14	16	6
Moved to a different location	21	17	26	22	12

Table 131

Reasons for Interrupting Advanced Study, by Graduate Field:
1961 Freshmen Who Ever Enrolled for Advanced Study
(In Percentages)

Reasons	Total, Ever Enrolled (N=174,168)	Biological Sciences (N=4,820)	Physical Sciences and Mathematics (N=9,466)	Health Fields (N=4,412)	Social Sciences (N=10,623)	All Other Fields (N=99,173)
No adequate program where I live (d)	12	10	18	18	11	12
Took a job	41	41	47	39	50	41
Changed my career plans	21	10	20	15	18	18
Decided I did not need a further degree	13	4	8	2	7	8
Wanted to reconsider my goals and interests	27	36	34	34	28	25
Tired of being a student	35	39	41	33	39	34
Home/child care responsibilities	29	23	20	20	20	31
No fellowship (scholarship, grant) offered	5	7	4	2	6	5
Fellowship, etc., terminated	1	1	6	1	1	1
Other financial problems	16	10	16	13	19	17
Spouse discouraged me	3	1	2	*	1	3
Others discouraged me	2	*	2	2	1	3
Course or examination difficulties	8	21	14	8	7	6
Thesis difficulties	4	4	4	2	10	5
Dissatisfied with the program	15	10	19	5	15	14
Moved to a different location	21	26	20	13	24	24
Other	13	18	9	23	14	13

Table 132

Reasons for Interrupting Advanced Study, by Advanced Study Index: 1961 Cohort

	Total Ever Enrolled For Advanced Study (N=174,168)	Currently Enrolled (N=12,527)	Interrupted Studies		Studies Completed		
			Hold No Advanced Degree (N=78,538)	Hold a Master's Degree (N=19,937)	Hold a Ph.D. or Professional Degree (N=7,143)	Hold a Master's Degree (N=21,137)	Hold No Advanced Degree (N=34,886)
No adequate program where I live (d)	12	10	16	12	2	8	8
Took a job	41	49	39	53	37	43	36
Changed my career plans	21	19	21	15	18	11	31
Decided I did not need a further degree	13	4	9	5	5	8	33
Wanted to reconsider my goals and interests	27	27	26	34	31	20	27
Tired of being a student	35	40	32	38	34	40	36
Home/child care responsibilities	29	16	36	20	6	23	29
No fellowship, etc. offered	5	7	4	9	3	4	4
Fellowship, etc., terminated	1	3	1	3	5	1	*
Other financial problems	16	12	21	17	9	9	14
Spouse discouraged me	3	2	3	1	*	1	3
Others discouraged me	2	2	2	2	3	2	1
Course or examination difficulties	8	9	7	4	9	7	10
Thesis difficulties	4	7	5	5	1	6	2
Dissatisfied with the program	15	9	14	13	7	15	21
Moved to a different location	21	17	28	17	10	18	14
Other	13	25	11	13	27	13	12

Table 133

Major Source of Financial Support for First Year of Advanced Study, by, Sex: 1961 Freshmen

Sources	Total		Men		Women	
	N	%	N	%	N	%
Fellowships, scholarships, traineeships, etc.						
NSF	5,367	2	4,231	3	1,137	1
NIH, NIMH, PHS	3,777	2	2,187	2	1,590	2
NDEA	6,253	3	4,752	4	1,501	2
Other HEW	2,162	1	862	1	1,300	2
Other federal government	5,781	3	4,324	3	1,457	2
State or local government	2,480	1	1,578	1	902	1
School or university	5,935	3	3,630	3	2,305	3
Private foundations, organizations	3,315	2	2,333	2	982	1
Industry or business	2,991	1	2,356	2	635	1
Other fellowships, scholarships	1,651	1	943	1	708	1
Employment						
Faculty appointment	1,325	1	435	*	890	1
Teaching assistantship	11,362	5	8,023	6	3,339	4
Research assistantship	6,136	3	4,592	3	1,543	2
Other part-time employment during acad. year	8,566	4	6,599	5	1,967	2
Other employment	31,524	14	16,576	12	14,948	18
Other sources						
Withdrawals from savings, assets	34,775	16	19,326	14	15,449	19
Spouse's earnings or funds	25,829	12	12,942		12,887	16
Support from parents or relatives	29,745	14	21,014	15	8,731	11
G.I. benefits	8,820	4	7,811	6	1,009	1
Federal government loans	1,640	1	1,311	1	329	*
State or local government loans	774	*	514	*	261	*
Commercial loans (banks, etc.)	2,698	1	1,315	1	1,384	2
Other loans	1,293	1	587	*	707	1
Partial aid from employer (tuition reimbursement or waiver, grants, etc.)	8,932	4	6,134	5	2,798	3
Other	6,343	3	3,167	2	3,175	4
Total	219,476	100	137,542	100	81,934	100

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Table 134

Major Source of Financial Support for First Year of Advanced Study, by Sex:
1966 Freshmen

Sources	Total		Men		Women	
	N	%	N		N	%
Fellowships, scholarships, traineeships, etc.						
NSF	4,152	2	3,085	2	1,067	1
NIH, NIMH, PHS	3,205	1	1,768	1	1,438	2
NDEA	3,991	2	2,562	2	1,429	2
Other HEW	2,732	1	795	1	1,937	2
Other federal government	6,199	3	2,988	2	3,211	3
State or local government	4,929	2	3,084	2	1,845	2
School or university	10,788	4	7,570	5	3,218	3
Private foundations, organizations	3,847	2	2,089	1	1,759	2
Industry or business	1,589	1	1,299	1	290	*
Other fellowships, scholarships	1,985	1	1,476	1	509	1
Employment						
Faculty appointment	831	*	379	*	452	1
Teaching assistantship						
Teaching assistantship	13,408	6	8,009	6	5,339	6
Research assistantship	5,188	2	3,226	2	1,962	2
Other part-time employment during acad. year	16,862	7	11,223	8	5,639	6
Other employment	27,680	11	15,195	10	12,485	13
Other sources						
Withdrawals from savings, assets	38,418	16	21,606	15	16,812	17
Spouse's earnings or funds	18,422	8	11,781	8	6,641	7
Support from parents or relatives	49,579	20	29,152	20	20,427	21
G.I. benefits	3,392	1	3,178	2	214	*
Federal government loans	4,039	2	2,802	2	1,237	1
State or local government loans	3,221	1	2,575	2	646	1
Commercial loans (banks, etc.)	3,697	2	1,887	1	1,810	2
Other loans	589	*	236	*	353	*
Partial aid from employer (tuition reimbursement or waiver, grants, etc.)	9,571	4	6,356	4	3,215	3
Other	4,884	2	2,449	2	2,435	3
Total	243,200	100	146,770	100	96,430	100

Table 135

Major Source of Financial Support for First Year of Advanced Study
by Graduate Field: 1961 Freshmen

Sources	Total Ever Enrolled for Advanced Study		Biological Sciences		Physical Sciences and Math		Health Fields		Social Sciences		Other Fields	
	N	%	N	%	N	%	N	%	N	%	N	%
Fellowships, scholarships, traineeships, etc.												
NSF	5,214	2	486	8	2,788	20	19	*	406	3	1,360	1
NIH, NIMH, PHS	3,753	2	761	12	109	1	611	4	928	6	1,266	1
NDEA	6,353	3	292	4	450	3	165	1	1,327	9	3,523	3
Other HEW	1,987	1	68	1	0	0	402	3	138	1	1,308	1
Other federal government	5,723	3	109	2	711	5	384	3	330	2	3,642	3
State or local government	2,473	1	29	*	28	*	184	1	64	*	1,801	1
School or university	5,928	3	574	9	764	6	477	3	469	3	3,346	2
Private foundations or organizations	3,556	2	22	*	58	*	150	1	495	3	2,547	2
Industry or business	3,226	2	0	0	104	1	71	1	6	*	2,220	2
Other sources	1,460	1	9	*	145	1	131	1	94	1	802	1
Employment												
Faculty appointment	1,325	1	0	0	8	*	139	1	21	*	952	1
Teaching assistantship	11,277	5	987	15	3,599	26	316	2	823	6	4,727	3
Research assistantship	6,122	3	634	10	5,242	4	401	3	863	6	3,421	2
Other part-time employment during the academic year	8,510	4	190	3	174	1	478	3	1,064	7	5,224	4
Other	31,601	15	770	12	1,178	9	486	3	1,207	8	23,171	17
Other sources												
Withdrawals from savings, assets	34,166	16	438	7	853	6	1,439	10	1,814	12	23,159	17
Spouse's earnings or funds	25,696	12	523	8	791	6	2,136	14	1,578	11	17,700	13
Support from parents, relatives	28,659	13	307	5	475	4	5,534	37	1,024	7	17,330	12
G.I. benefits	8,949	4	90	1	32	*	98	1	815	6	6,036	4
Federal government loans	1,359	1	4	*	20	*	328	2	209	1	693	1
State or local govt. loans	774	*	0	0	185	1	83	1	131	1	305	*
Commercial loans	2,698	1	0	0	10	*	365	2	46	*	2,130	2
Other loans	1,293	1	0	0	12	*	69	1	216	2	936	1
Partial aid from employer	8,863	4	136	2	607	4	84	1	93	1	6,594	3
Other	6,115	3	51	1	135	1	273	2	684	5	3,915	3
Total	217,080	100	6,477	100	13,760	100	14,821	100	14,845	100	138,108	100

Table 136

Major Source of Financial Support for First Year of Advanced Study
by Graduate Field: 1966 Freshmen

Sources	Total Ever Enrolled for Advanced Study		Biological Sciences		Physical Sciences and Math		Health Fields		Social Sciences		Other Fields	
	N	%	N	%	N	%	N	%	N	%	N	%
Fellowships, scholarships, traineeships, etc.												
NSF	4,204	2	681	9	1,417	12	17	*	385	2	1,438	1
NIH, NIMH, PHS	3,221	1	502	7	134	1	700	3	1,047	6	811	1
NDEA	4,014	2	62	1	288	2	233	1	365	2	2,876	2
Other HEW	2,732	1	17	*	0	0	1,130	5	166	1	1,338	1
Other federal government	6,053	2	127	2	97	1	676	3	800	5	4,072	3
State or local government	4,928	2	20	*	34	*	613	2	371	2	2,295	2
School or university	11,175	5	440	6	1,005	8	1,255	5	975	6	6,224	4
Private foundations or organizations	3,806	2	0	0	79	1	657	3	184	1	2,487	2
Industry or business	1,610	1	11	*	140	1	144	1	64	*	1,177	1
Other sources	1,694	1	0	0	36	*	224	1	226	1	712	1
Employment												
Faculty appointment	888	*	0	0	15	*	0	0	107	1	760	1
Teaching assistantship	13,762	6	1,562	21	3,460	29	267	1	1,243	8	6,283	4
Research assistantship	5,216	2	553	7	696	6	48	*	1,224	8	2,672	2
Other part-time employment during the academic year	15,697	6	300	4	311	3	984	4	1,028	6	9,011	6
Other	27,718	11	606	8	896	8	923	4	2,046	13	20,394	14
Other sources												
Withdrawals: Savings, Assets	40,003	16	559	7	1,338	11	2,996	12	1,377	9	28,933	19
Spouse's earnings or funds	18,506	8	252	3	413	4	1,983	8	1,401	9	11,947	8
Support from parents, relatives	48,410	20	1,292	17	448	4	9,215	38	1,987	12	27,076	18
G.I. benefits	3,282	1	0	0	164	1	34	*	169	1	2,376	2
Federal government loans	4,054	2	106	1	67	1	817	3	301	2	2,174	1
State or local govt. loans	3,445	1	36	1	88	1	414	2	256	2	2,240	2
Commercial loans	3,523	2	16	*	0	0	667	3	0	0	2,102	1
Other loans	623	*	0	0	0	0	69	*	32	*	362	*
Partial aid from employer	8,895	4	382	5	651	6	70	*	202	1	6,951	5
Other	4,816	2	17	*	52	*	195	1	28	*	3,777	2
Total	242,276	100	7,539	100	11,829	100	24,332	100	15,985	100	150,489	100

Table 137

Major Source of Financial Support for First Year of Advanced Study
by Advanced Study Index: 1961 Freshmen
(In Percentages)

Sources	Total Ever Enrolled For Advanced Study (N=217,080)	Currently Enrolled (N=18,154)	Interrupted Studies: Hold No Advanced Degree (N=56,818)	Interrupted Studies: Hold a Master's Degree (N=26,898)	Studies Completed: Hold a Ph.D. or Professional Degree (N=37,595)	Studies Completed: Hold a Master's Degree (N=56,996)	Studies Completed: Hold No Advanced Degree (N=20,618)
Fellowships, scholarships, traineeships, etc.							
NSF	2	3	2	3	4	2	*
NIH, NIMH, PHS	2	4	*	2	3	2	*
NDEA	3	6	3	4	4	2	*
Other HEW	1	1	1	2	*	1	*
Other federal government	3	3	2	4	4	2	2
State or local government	1	1	1	1	1	2	1
School or university	3	6	1	3	5	3	1
Private foundations or organizations	2	3	1	2	3	1	1
Industry or business	2	2	2	1	1	1	3
Other sources	1	1	*	1	2	*	1
Employment							
Faculty appointment	1	*	1	1	*	1	1
Teaching assistantship	5	10	1	6	8	6	3
Research assistantship	3	6	2	3	4	3	1
Other part-time employment during the academic year	4	3	4	3	4	4	6
Other	15	3	22	17	4	17	15
Other sources							
Withdrawals from savings, assets	16	11	18	13	6	20	21
Spouse's earnings or funds	12	15	12	9	14	10	13
Support from parents, relatives	13	8	6	9	28	13	17
G.I. benefits	4	9	6	6	1	2	5
Federal government loans	1	1	*	*	2	1	1
State or local govt. loans	*	0	1	1	*	*	0
Commercial loans	1	2	1	2	1	1	1
Other loans	1	0	*	*	1	2	0
Partial aid from employer	4	1	9	2	0	3	5
Other	3	1	4	4	1	3	3
Total	100	100	100	100	100	100	100

Table 138

Major Source of Financial Support for First Year of Advanced Study
by Advanced Study Index: 1966 Freshmen
(In Percentages)

Sources	Total Ever Enrolled For Advanced Study (N=242,276)	Currently Enrolled (N=166,396)	Interrupted Studies: Hold No Advanced Degree (N=35,708)	Interrupted Studies: Hold a Master's Degree (N=6,373)	Studies Completed: Hold a Master's Degree (N=10,093)	Studies Completed: Hold No Advanced Degree (N=23,707)
Fellowships, scholarships, traineeships, etc.						
NSF	2	2	2	1	2	1
NIH, NIMH, PHS	1	2	*	2	2	0
NDEA	2	2	1	2	4	*
Other HEW	1	1	2	1	2	*
Other federal government	2	2	2	22	3	1
State or local government	2	1	2	6	*	7
School or university	5	5	4	7	5	4
Private foundations or organizations	2	2	1	1	3	1
Industry or business	1	1	*	*	1	*
Other sources	1	1	2	0	1	1
Employment						
Faculty appointment	*	*	*	0	1	0
Teaching assistantship	6	6	5	9	10	2
Research assistantship	2	3	1	*	4	0
Other part-time employment during the academic year	6	5	7	7	6	14
Other	11	12	12	1	6	8
Other sources						
Withdrawals from savings, assets	16	17	21	10	8	13
Spouse's earnings or funds	8	8	7	2	12	5
Support from parents, relatives	20	19	16	21	26	27
G.I. benefits	1	1	3	0	2	2
Federal government loans	2	2	2	1	1	2
State or local govt. loans	1	1	2	4	1	2
Commercial loans	2	2	1	1	1	3
Other loans	*	*	*	*	*	1
Partial aid from employer	4	4	4	2	0	3
Other	2	2	4	3	0	3
Total	100	100	100	100	100	100

Table 139

All Current Sources of Financial Support for Advanced Study, by Sex: 1961 Freshmen

Sources	Total N (N=27,208)	Total %	Men N (N=20,098)	Men %	Women N (N=7,110)	Women %
Fellowships, scholarships, traineeships, etc.						
NSF	567	2	500	2	68	1
NIH, NIMH, PHS	[illegible]	6	1,000	5	627	9
NDEA	1,209	4	966	5	244	3
Other HEW	397	2	237	1	160	2
Other federal government	2,700	10	2,306	12	395	6
State or local government	1,193	4	971	5	222	3
School or university	4,572	17	3,770	19	802	11
Private foundations, organizations	1,108	4	855	4	252	4
Industry or business	657	2	563	3	93	1
Other fellowships, scholarships	551	2	411	2	140	2
Employment						
Faculty appointment	452	2	317	2	135	2
Teaching assistantship	4,373	16	3,756	19	618	9
Research assistantship	4,173	15	3,733	19	440	6
Other part-time employment during acad. year	5,008	18	3,590	18	1.418	20
Other employment	2,732	10	2,382	12	350	5
Other sources						
Withdrawals from savings, assets	9,012	33	6,668	33	2,344	33
Spouse's earnings or funds	9,899	36	7,094	35	2,805	40
Support from parents or relatives	3,741	14	2,757	14	984	14
G.I. benefits	7,008	26	6,348	32	660	9
Federal government loans	2,140	8	1,741	9	399	6
State or local government loans	919	3	769	4	150	2
Commercial loans (banks, etc.)	1,833	7	1,329	7	504	7
Other loans	1,204	4	1,069	5	135	2
Partial aid from employer (tuition reimbursement or waiver, grants, etc.)	1,423	5	940	5	483	7
Other	1,080	4	722	4	357	5

Table 140

All Current Sources of Financial Support for Advanced Study, by Sex: 1966 Freshmen

Sources	Total N (N=243,024)	Total %	Men N (N=150,185)	Men %	Women N (N=92,840)	Women %
Fellowships, scholarships, traineeships, etc.						
NSF	3,560	2	2,472	2	1,088	1
NIH, NIMH, PHS	4,622	2	3,106	2	1,516	2
NDEA	6,643	3	4,789	3	1,854	2
Other HEW	3,010	1	1,536	1	1,475	2
Other federal government	6,734	3	5,015	3	1,718	2
State or local government	7,668	3	5,969	4	1,699	2
School or university	23,909	10	17,206	11	6,704	7
Private foundations, organizations	5,930	2	4,547	3	1 383	2
Industry or business	3,266	1	2,781	2	485	1
Other fellowships, scholarships	6,077	3	4,550	3	1,527	2
Employment						
Faculty appointment	1,902	1	1,181	1	721	1
Teaching assistantship	19,105	8	13,348	9	5,757	6
Research assistantship	13,721	6	10,372	7	3,349	4
Other part-time employment during acad. year	39,827	16	28,818	19	11,009	12
Other employment	51,671	21	30,984	21	20,687	22
Other sources						
Withdrawals from savings, assets	73,469	30	47,498	32	25,971	28
Spouse's earnings or funds	42,574	18	30,332	20	12,242	13
Support from parents or relatives	61,461	25	40,472	27	20,990	23
G.I. benefits	3,194	1	2,270	2	924	1
Federal government loans	13,098	5	9,417	6	3,681	4
State or local government loans	8,013	3	7,306	5	707	1
Commercial loans (banks, etc.)	7,032	3	5,446	4	1,587	2
Other loans	5,897	2	4,596	3	1,301	1
Partial aid from employer (tuition reimbursement or waiver, grants, etc.)	18,291	8	11,307	8	6,984	8
Other	8,111	3	5,428	4	2,683	3

Table 141

All Current Sources of Financial Support for Advanced Study by Graduate Field: 1961 Freshmen

Sources	Total Currently Enrolled N	%	Biological Sciences N	%	Physical Sciences and Math N	%	Health Fields N	%	Social Sciences N	%	Other Fields N	%
Fellowships, scholarships, traineeships, etc.												
NSF	567	2	109	4	278	9	28	1	43	2	97	1
NIH, NIMH, PHS	1,626	6	776	30	9	*	303	15	294	12	190	1
NDEA	1,209	4	78	3	74	2	44	2	228	9	735	5
Other HEW	397	2	0	0	0	0	77	4	47	2	188	1
Other federal government	2,700	10	439	17	227	8	352	17	141	6	1,453	9
State or local government	1,193	4	77	3	57	2	315	15	82	3	594	4
School or university	4,572	17	498	19	634	21	474	23	444	18	2,406	15
Private foundations, organizations	1,108	4	33	1	142	5	263	13	259	10	405	2
Industry or business	656	2	0	0	241	8	0	0	31	1	385	2
Other sources	551	2	8	*	64	2	47	2	167	7	262	2
Employment												
Faculty appointment	452	2	9	*	4	*	0	0	224	9	215	1
Teaching assistantship	4,373	16	369	14	1,327	44	13	1	413	17	2,161	13
Research assistantship	4,172	15	768	30	999	33	0	0	351	14	1,894	12
Other part-time employment during the academic year	5,008	18	417	16	264	9	376	18	596	24	3,082	19
Other employment	2,732	10	109	4	197	6	246	12	389	16	1,673	10
Other sources												
Withdrawals from savings, assets	9,012	33	769	30	525	17	995	49	648	26	[illegible]	35
Spouse's earnings or funds	9,899	36	1,038	40	841	28	1,148	56	989	40	5,559	35
Support from parents, relatives	3,741	14	208	8	339	11	362	18	134	5	2,405	15
G.I. benefits	7,008	26	545	21	362	12	238	12	436	18	5,207	32
Federal government loans	2,140	8	85	3	150	5	534	26	123	5	1,145	7
State or local govt. loans	919	3	27	1	48	2	300	15	47	2	488	3
Commercial loans	1,833	7	354	14	112	4	406	20	194	8	671	4
Other loans	1,204	4	4	*	87	3	50	2	103	4	885	6
Partial aid from employer	1,423	5	123	5	262	9	34	2	248	10	591	4
Other	1,080	4	271	10	98	3	33	2	39	2	526	3
Total	27,208	-	2,601	--	3,026	-	2,042	-	2,488	-	16,083	-

Table 142

All Current Sources of Financial Support for Advanced Study by Graduate Field: 1966 Freshmen

Sources	Total, Currently Enrolled N (N=243,024)	%	Biological Sciences N (N=9,755)	%	Physical Sciences and Math N (N=13,787)	%	Health Fields N (N=31,650)	%	Social Sciences N (N=17,290)	%	Other Fields N (N=159,942)	%
Fellowships, scholarships, traineeships, etc.												
NSF	3,560	2	851	9	1,044	8	162	1	455	3	969	1
NIH, NIMH, PHS	4,622	2	495	5	687	5	1,460	5	917	5	1,028	1
NDEA	6,643	3	104	1	679	5	759	2	880	5	4,207	3
Other HEW	3,010	1	0	0	0	0	1,087	3	233	1	1,690	1
Other federal government	6,734	3	374	4	323	2	2,014	6	518	3	3,346	2
State or local government	7,668	3	198	2	291	2	225	7	580	3	4,285	3
School or university	23,909	10	1,396	14	2,071	15	4,660	15	1,899	11	13,277	8
Private foundations or organizations	5,930	2	60	1	152	1	1,582	5	310	2	3,762	2
Industry or business	3,266	1	69	1	475	3	102	*	64	*	2,537	2
Other sources	6,077	2	60	1	313	2	1,718	5	96	1	3,814	2
Employment												
Faculty appointment	1,902	1	182	2	108	1	0	0	129	1	869	1
Teaching assistantship	19,105	8	2,008	21	4,618	34	684	2	2,564	15	8,440	5
Research assistantship	13,721	6	1,414	14	1,753	13	1,800	6	2,326	14	6,256	4
Other part-time employment during the academic year	39,827	16	930	10	1,024	7	5,854	18	2,750	16	27,988	18
Other employment	51,671	21	2,228	23	2,475	18	5,557	18	3,464	20	36,824	23
Other sources												
Withdrawals from savings, assets	73,469	30	2,655	27	4,089	30	11,309	36	4,505	26	49,282	31
Spouse's earnings or funds	42,574	18	2,269	23	2,201	16	6,577	21	3,128	18	27,667	17
Support from parents, relatives	61,461	25	2,663	27	1,743	13	14,132	45	3,810	22	37,218	23
G.I. benefits	3,194	2	110	1	289	2	103	*	239	1	1,931	1
Federal government loans	13,098	5	211	2	353	3	4,646	15	837	5	6,928	4
State or local govt. loans	8,013	3	107	1	116	1	2,897	9	304	2	4,556	3
Commercial loans	7,032	3	242	2	181	1	2,093	7	348	2	4 040	2
Other loans	5,897	2	30	*	342	2	2,113	7	353	2	2,868	2
Partial aid from employer	18,290	8	1,245	13	1,570	11	291	1	551	3	14,030	9
Other	8,111	3	420	4	313	2	465	2	645	4	5,748	4

Table 143

Reasons for Not Enrolling at First-Choice Graduate or Professional School, by Sex and Graduate Field:
1966 Freshmen Who Ever Enrolled for Advanced Study
(In Percentages)

				Graduate Field				
	Total	Men	Women	Biological Sciences	Physical Sciences & Mathematics	Health Fields	Social Sciences	Other Fields
Was not accepted	50	61	30	55	43	74	57	51
No financial assistance offered	16	11	25	23	30	4	18	17
Unacceptable amount of financial assistance offered	5	4	5	4	13	4	1	4
Better terms of financial assistance at second-choice school	9	7	12	1	17	2	12	10
Other reasons (not financial)	31	24	44	25	23	23	26	34
Base N. Total Who Did Not Enroll at First-Choice Institution	53,337	35,320	18,017	2,243	3,590	5,324	6,873	31,126
Percent of total	(19)	(21)	(15)	(24)	(23)	(21)	(35)	(16)

Table 144

Indebtedness Incurred for Undergraduate and Graduate Study by Sex and Race: 1961 Freshmen Who Ever
Enrolled for Advanced Study
(In Percentages)

				Race	
Amount of Loan	Total	Men	Women	White	Black
Amount of loan for undergraduate study					
None	64	62	68	65	61
Less than $500	7	7	6	7	6
$500-999	7	8	6	7	9
$1000-1999	12	12	11	11	6
$2000-3999	7	8	7	7	18
$4000 or more	3	4	2	3	1
Total	100	100	100	100	100
N	310,332	194,461	115,871	198,663	4,704
Amount of loan for graduate study					
None	71	66	80	71	67
Less than $500	5	5	4	4	7
$500-999	5	6	5	5	3
$1000-1999	8	10	6	8	14
$2000-3999	6	7	3	6	7
$4000 or more	5	6	3	5	3
Total	100	100	100	100	100
N	290,882	185,942	104,941	189,774	4,713

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Table 145

Indebtedness Incurred for Undergraduate and Graduate Study by Sex and Race: 1966 Freshman
Who Ever Enrolled for Advanced Study
(In Percentages)

Amount of Loan	Total	Men	Women	Race White	 Black
Amount of loan for undergraduate study					
None	60	59	61	60	35
Less than $500	6	7	5	6	20
$500-999	6	6	7	6	8
$1000-1999	11	11	11	11	17
$2000-3999	12	12	12	12	16
$4000 or more	5	6	4	5	4
Total	100	100	100	100	100
N	329,307	197,266	132,041	300,119	14,970
Amount of loan for graduate study					
None	72	68	79	74	40
Less than $500	5	4	5	4	16
$500-999	5	6	4	4	5
$1000-1999	10	11	8	9	18
$2000-3999	6	7	4	5	16
$4000 or more	3	4	1	3	6
Total	100	100	100	100	100
N	286,468	174,910	111,558	264,375	10,323

Table 146

Indebtedness Incurred for Undergraduate and Graduate Study by Graduate Field: 1961 Freshmen
Who Ever Enrolled for Advanced Study
(In Percentages)

Amount of Loan	Total, Ever Enrolled	Biological Sciences	Physical Sciences and Mathematics	Health Fields	Social Sciences	All Other Fields
Amount of loan for undergraduate study						
None	64	62	62	68	61	63
Less than $500	6	7	6	5	6	6
$500-999	7	12	9	5	12	6
$1000-1999	12	8	13	10	13	12
$2000-3999	7	9	7	7	6	8
$4000 or more	3	2	2	4	2	4
Total	100	100	100	100	100	100
N	297,557	10,494	19,819	18,133	19,589	183,217
Amount of loan for graduate study						
None	72	69	79	46	69	72
Less than $500	4	5	5	2	4	5
$500-999	5	5	2	3	5	6
$1000-1999	8	13	7	11	12	8
$2000-3999	6	5	6	11	6	6
$4000 or more	5	3	2	28	4	4
Total	100	100	100	100	100	100
N	286,380	10,108	18,580	21,039	18,804	180,770

Table 147

Indebtedness Incurred for Undergraduate and Graduate Study by Graduate Field: 1966 Freshmen
Who Ever Enrolled for Advanced Study
(In Percentages)

Amount of Loan	Total Ever Enrolled for Advanced Study	Biological Sciences	Physical Sciences and Mathematics	Health Fields	Social Sciences	All Other Fields
Amount of loan for undergraduate study						
None	60	67	62	66	54	59
Less than $500	6	1	4	5	6	6
$500-999	6	6	7	7	4	5
$1000-1999	11	10	12	10	15	11
$2000-3999	12	8	11	6	16	13
$4000 or more	5	9	4	6	3	6
Total	100	100	100	100	100	100
N	319,614	10,122	15,705	28,657	19,188	190,635
Amount of loan for graduate study						
None	72	82	86	51	76	73
Less than $500	5	2	5	2	5	5
$500-999	5	9	2	3	8	4
$1000-1999	9	3	4	10	8	11
$2000-3999	6	2	3	20	2	4
$4000 or more	3	3	*	13	2	2
Total	100	100	100	100	100	100
N	283,710	9,423	14,691	28,904	17,698	178,879

Table 148

Indebtedness Incurred for Graduate Study by Advanced Study Status and Graduate Field: 1961 Freshmen
Who Ever Enrolled for Advanced Study
(In Percentages)

Amount of Loan	Currently Enrolled	Interrupted Studies/ Hold No Advanced Degree	Interrupted Studies/ Hold Master's Degree	Completed Studies/ Hold Ph.D. or professional Degree	Completed Studies/ Hold Master's Degree	Completed Studies/ Hold No Advanced Degree
Biological Sciences						
None	63	74	58	68	81	0
Less than $500	13	1	6	2	1	0
$500 - 999	4	3	13	7	1	0
$1000- 1999	10	22	13	7	14	0
$2000- 3999	8	0	5	9	2	0
$4000 or more	2	*	5	7	2	0
Total	100	100	100	100	100	0
N	2,436	2,214	1,341	2,589	1,528	0
Physical Sciences and Mathematics						
None	72	87	67	74	88	0
Less than $500	7	6	3	4	4	0
$500 - 999	1	1	10	2	1	0
$1000 - 1999	7	2	15	7	6	0
$2000 - 3999	10	4	2	9	1	0
$4000 or more	2	1	2	4	1	0
Total	100	100	100	100	100	0
N	2,358	4,774	2,623	4,625	3,699	0
Health Fields						
None	28	58	89	40	90	90
Less than $500	*	1	0	2	1	0
$500 - 999	1	15	2	2	0	10
$1000 - 1999	23	3	1	12	8	0
$2000 - 3999	20	8	4	11	2	0
$4000 or more	28	15	4	32	0	0
Total	100	100	100	100	100	100
N	1,935	1,540	1,106	15,208	1,101	149
Social Sciences						
None	58	80	57	68	76	100
Less than $500	7	6	2	3	2	0
$500 - 999	10	2	9	3	5	0
$1000 - 1999	13	9	15	14	13	0
$2000 - 3999	7	2	12	7	4	0
$4000 or more	5	2	6	6	1	0
Total	100	100	100	100	100	100
N	2,377	5,306	4,328	3,080	3,705	10
All Other						
None	61	81	68	56	76	72
Less than $500	5	5	5	4	5	6
$500 - 999	8	6	8	5	6	*
$1000 - 1999	10	5	8	12	9	9
$2000 - 3999	12	2	7	12	4	0
$4000 or more	4	2	4	12	1	13
Total	100	100	100	100	100	100
N	14,184	53,071	27,738	24,454	60,113	1,210

Table 149

Indebtedness Incurred for Graduate Study by Advanced Study Status and Graduate Field: 1966 Freshmen Who Ever Enrolled for Advanced Study
(In Percentages)

Amount of Loan	Currently Enrolled	Interrupted Studies/ Hold No Advanced Degree	Interrupted Studies/ Hold Master's Degree	Completed Studies/ Hold Master's Degree	Completed Studies/ Hold No Advanced Degree
			Biological Sciences		
None	80	87	100	100	100
Less than $500	2	10	0	0	0
$500 - 999	10	0	0	0	0
$1000 - 1999	3	0	0	0	0
$2000 - 3999	2	3	0	0	0
$4000 or more	3	0	0	0	0
Total	100	100	100	100	100
N	8,518	685	192	23	5
			Physical Sciences and Mathematics		
None	84	94	97	84	0
Less than $500	6	1	0	8	0
$500 - 999	2	0	0	8	0
$1000 - 1999	5	0	3	0	0
$2000 - 3999	2	5	0	0	0
$4000 or more	*	0	0	0	0
Total	100	100	100	100	0
N	12,211	2,026	229	226	0
			Health Fields		
None	48	62	97	50	100
Less than $500	1	19	0	0	0
$500 - 999	3	6	2	0	0
$1000 - 1999	10	8	0	5	0
$2000 - 3999	22	0	0	45	0
$4000 or more	15	4	1	0	0
Total	100	100	100	100	100
N	24,733	2,534	452	777	407

Table 150

Maximum Debt Respondents were Willing to Incur for their Education, by Sex: 1961 and 1966 Freshmen Who Ever Enrolled for Advanced Study
(In Percentages)

Maximum Amount of Loan	1961 Cohort			1966 Cohort		
	Total (N=269,608)	Men (N=174,227)	Women (N=95,381)	Total (N=298,328)	Men (N=183,082)	Women (N=115,246)
None	45	42	52	35	33	39
Less than $500	5	4	7	5	4	7
$500 - 999	6	6	6	7	5	9
$1000 - 1999	12	12	13	13	11	14
$2000 - 3999	12	13	11	16	16	17
$4000 - 5999	9	10	6	12	14	8
$6000 - 9,999	5	6	3	6	8	3
$10,000 - 13,999	3	4	1	3	5	1
$14,000 or more	2	3	1	3	4	1
Total	100	100	100	100	100	100

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Table 151

Maximum Debt Respondents were Willing to Incur for their Education, by Race: 1961 and 1966 Freshmen Who Ever Enrolled for Advanced Study
(In Percentages)

Maximum Amount of Loan	1961 Cohort White (N=175,347)	1961 Cohort Black (N=4,231)	1966 Cohort White (N=273,357)	1966 Cohort Black (N=12,670)
None	46	29	36	16
Less than $500	6	10	5	11
$500 - 999	5	4	7	5
$1000 - 1999	11	16	13	14
$2000 - 3999	12	14	16	22
$4000 - 5999	9	13	11	14
$6000 - 9,999	6	3	6	7
$10,000 - 13,999	3	4	4	1
$14,000 or more	2	6	2	9
Total	100	100	100	100

Table 152

Maximum Debt Respondents were Willing to Incur for their Education: 1961 Freshmen Who Ever Enrolled for Advanced Study, by Graduate Field
(In Percentages)

Maximum Amount of Loan	Biological Sciences (N=9,443)	Physical Sciences and Mathematics (N=17,601)	Health Fields (N=17,938)	Social Sciences (N=18,181)	All Other Fields (N=164,168)
None	38	47	32	37	46
Less than $500	8	8	2	7	5
$500 - 999	5	7	3	6	6
$1000 - 1999	14	12	5	16	13
$2000 - 3999	13	12	11	15	12
$4000 - 5999	6	8	11	10	9
$6000 - 9,999	12	2	14	4	5
$10,000 - 13,999	3	1	10	4	3
$14,000 or more	1	3	11	1	2
Total	100	100	100	100	100

Table 153

Maximum Debt Respondents were Willing to Incur for their Education:
1966 Freshmen Who Ever Enrolled for Advanced Study, by Graduate Field
(In Percentages)

Maximum Amount of Loan	Biological Sciences (N=9,980)	Physical Sciences and Mathematics (N=15,202)	Health Fields (N=28,473)	Social Sciences (N=17,425)	All Other Fields (N=178,340)
None	38	34	22	26	36
Less than $500	6	8	1	4	5
$500 - 999	4	6	5	6	7
$1000 -1999	16	14	8	19	13
$2000 - 3999	14	16	9	20	18
$4000 - 5999	14	8	15	13	12
$6000 - 9,999	4	4	16	7	5
$10,000 - 13,999	3	6	11	3	2
$14,000 or more	2	1	13	3	1
Total	100	100	100	100	100

Table 154

Maximum Debt Respondents were Willing to Incur for Their Education, by Advanced Study Status:
1961 Freshmen Who Ever Enrolled for Advanced Study
(In Percentages)

Maximum Amount of Loan	Total Ever Enrolled For Advanced Study (N=261,800)	Currently Enrolled (N=24,228)	Interrupted Studies		Studies Completed		
			Hold No Advanced Degree (N=73,446)	Hold a Master's Degree (N=35,873)	Hold a Ph.D. or Professional Degree (N=40,569)	Hold a Master's Degree (N=62.633)	Hold No Advanced Degree (N=25,050)
None	46	33	44	35	42	56	58
Less than $500	5	4	8	3	3	4	6
$500 - 999	6	4	6	7	3	7	6
$1000 - 1999	12	13	14	15	9	11	11
$2000 - 3999	12	16	11	14	13	10	9
$4000 - 5999	9	16	9	12	9	5	5
$6000 - 9,999	5	8	4	6	9	2	3
$10,000 - 13,999	3	3	1	6	7	3	1
$14,000 or more	2	3	2	2	5	1	1
Total	100	100	100	100	100	100	100

Table 155

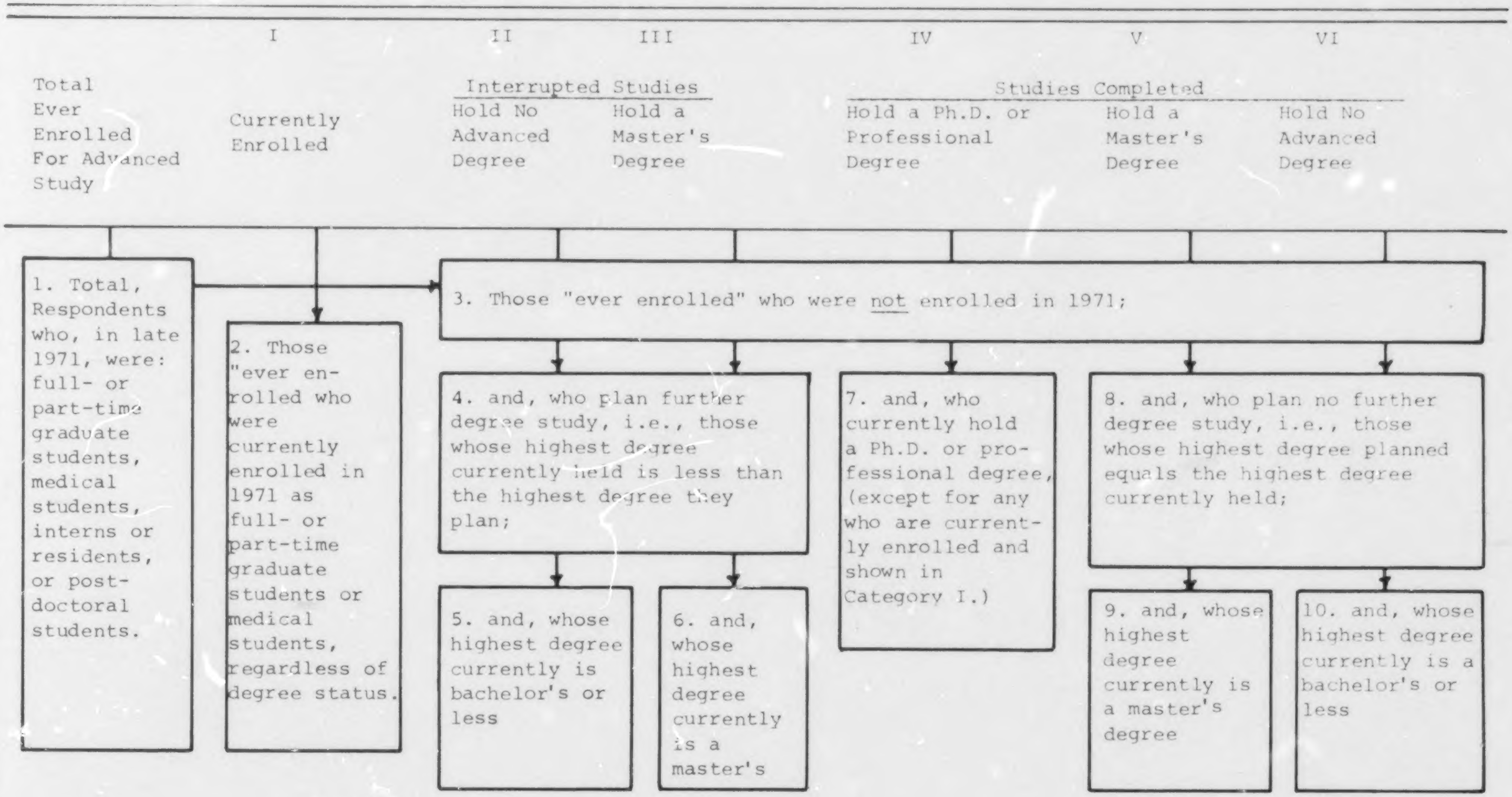
Maximum Debt Respondents were Willing to Incur for Their Education, by Advanced Study Status:
1966 Freshmen Who Ever Enrolled for Advanced Study
(In Percentages)

			Interrupted Studies		Studies Completed	
Maximum Amount of Loan	Total Ever Enrolled For Advanced Study (N=291,931)	Currently Enrolled (N=193,019)	Hold No Advanced Degree (N=47,613)	Hold a Master's Degree (N=9,601)	Hold a Master's Degree (N=12,159)	Hold No Advanced Degree (N=29,539)
None	35	34	33	38	34	50
Less than $500	5	5	4	7	4	6
$500 - 999	7	6	8	3	7	8
$1000 - 1999	13	12	17	16	16	8
$2000 - 3999	16	16	16	17	23	11
$4000 - 5999	12	12	11	8	10	11
$6000 - 9,999	6	7	6	6	5	2
$10,000 - 13,999	4	4	5	5	0	2
$14,000 or more	2	3	1	1	1	1
Total	100	100	100	100	100	100

FIGURES

Figure 1

Definitional Components of the Advanced Study Index


I
II
III
IV
V
VI
Total Ever Enrolled For Advanced Study
Currently Enrolled
Interrupted Studies
Hold No Advanced Degree
Hold a Master's Degree
Studies Completed
Hold a Ph.D. or Professional Degree
Hold a Master's Degree
Hold No Advanced Degree
1. Total, Respondents who, in late 1971, were: full- or part-time graduate students, medical students, interns or residents, or post-doctoral students.
2. Those "ever enrolled who were currently enrolled in 1971 as full- or part-time graduate students or medical students, regardless of degree status.
3. Those "ever enrolled" who were not enrolled in 1971;
4. and, who plan further degree study, i.e., those whose highest degree currently held is less than the highest degree they plan;
5. and, whose highest degree currently is bachelor's or less
6. and, whose highest degree currently is a master's
7. and, who currently hold a Ph.D. or professional degree, (except for any who are currently enrolled and shown in Category I.)
8. and, who plan no further degree study, i.e., those whose highest degree planned equals the highest degree currently held;
9. and, whose highest degree currently is a master's degree
10. and, whose highest degree currently is a bachelor's or less

Remarks:

1. Except for Category I, any respondents who cited "other" degrees are excluded from the analysis.
2. Category IV applies to the 1961 cohort only.
3. The majority of the respondents in Category VI did not give a graduate major. They are therefore necessarily excluded from any tabular presentations based on graduate field categories.

Figure 2

Primary Activity Past Seven Years: 1961 Cohort Men
(N = 359,670)

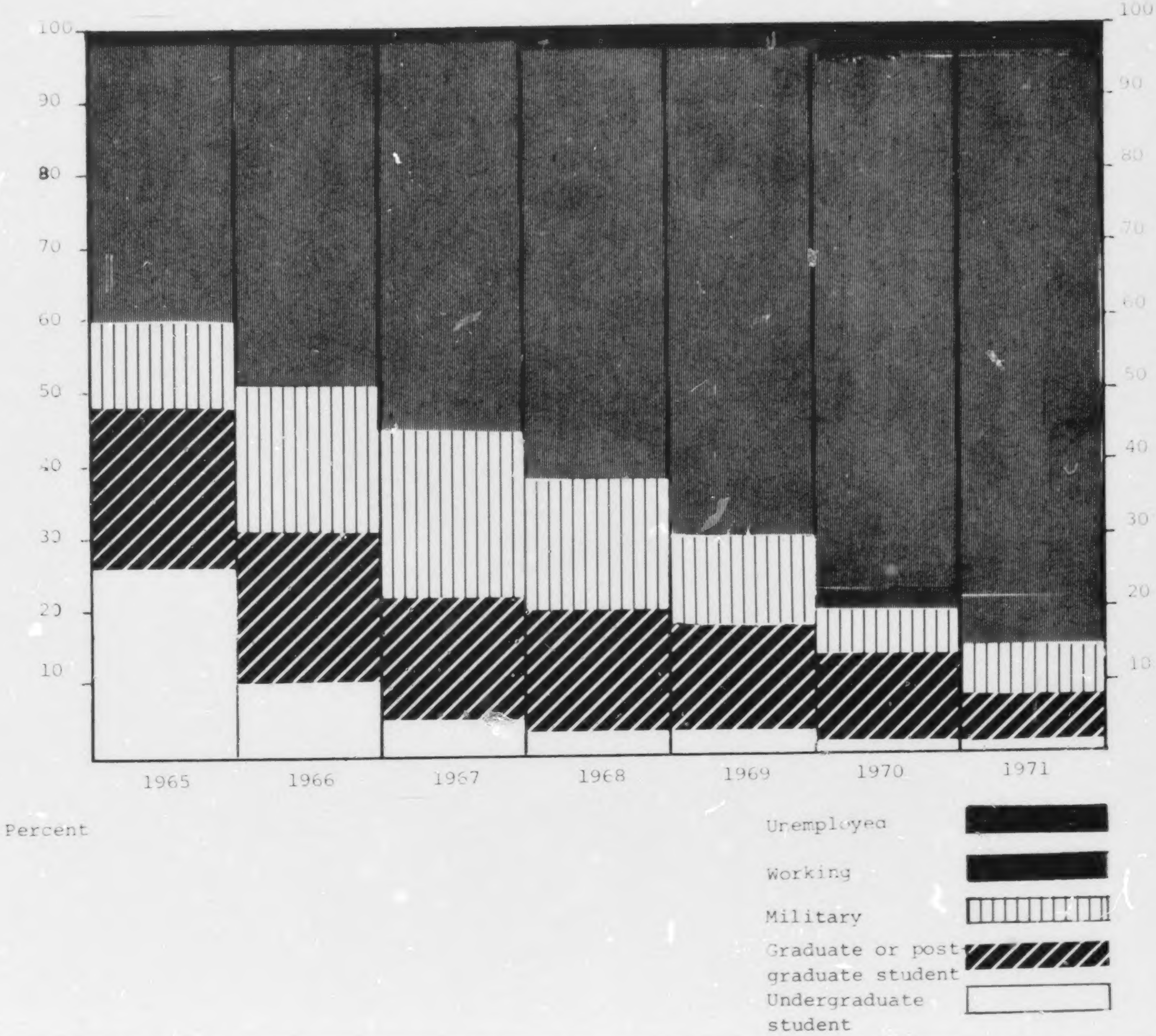


Figure 3

Primary Activity Past Seven Years: 1961 Cohort Women
(N = 243,749)

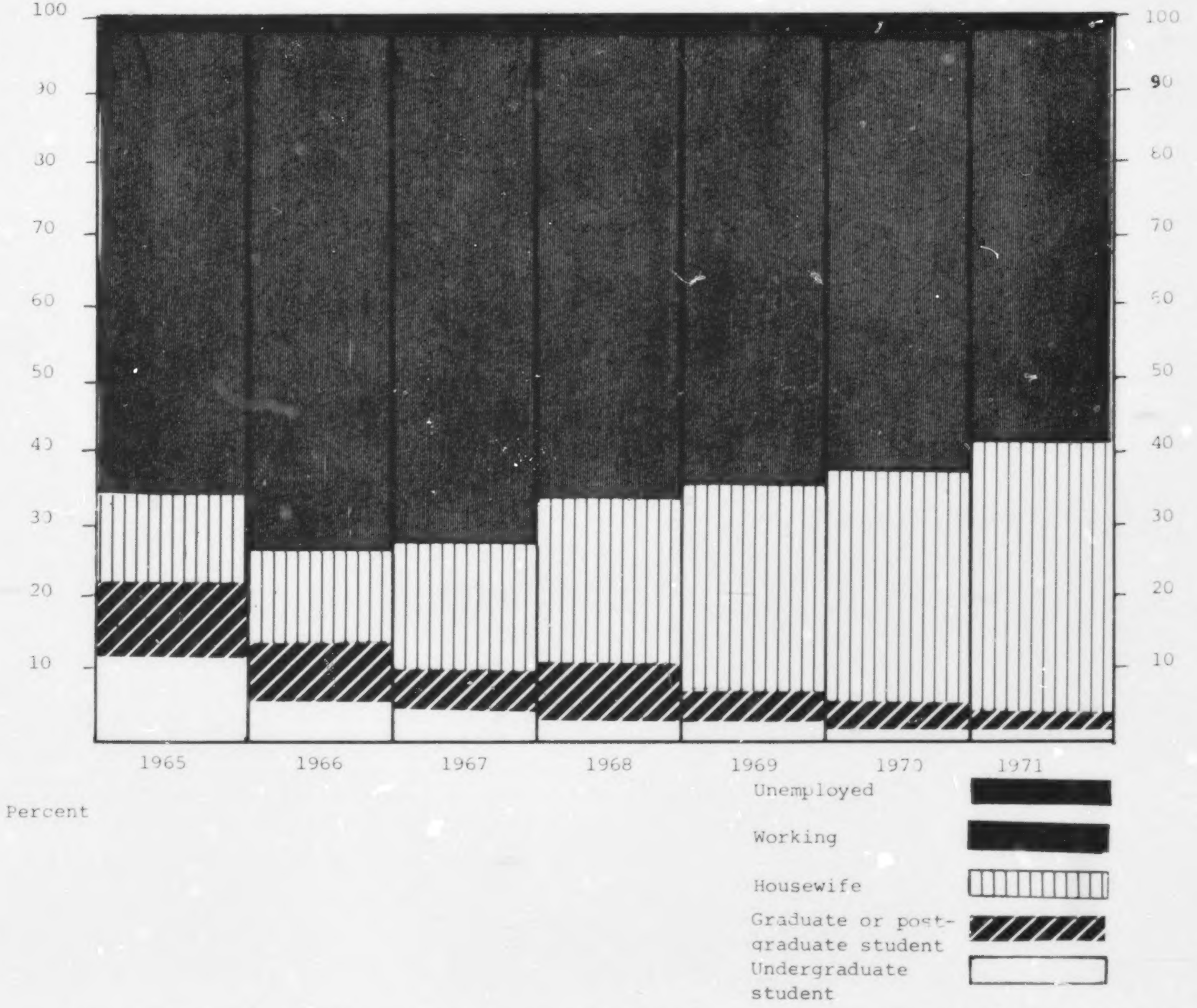
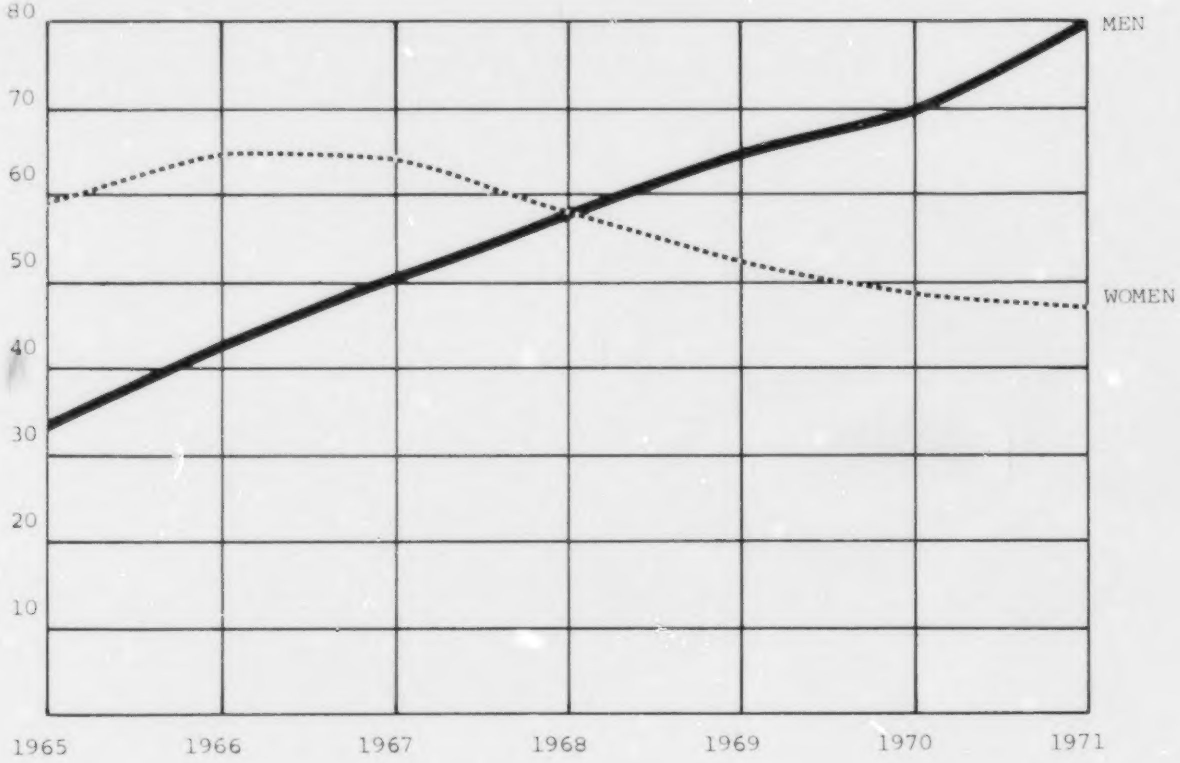


Figure 4

Percentage of Men and Women Working Full-Time Four to Ten Years After Matriculation



APPENDIX A

Letter to the 1966 Cohort

APPENDIX A
LETTER TO THE 1966 COHORT

AMERICAN COUNCIL ON EDUCATION
ONE DUPONT CIRCLE
WASHINGTON, D. C. 20036

OFFICE OF THE PRESIDENT

Dear Member of our Survey Panel:

Preliminary analyses of the results from the four-year followup questionnaire that we sent you last year are now well under way, and we thought you might be interested in some of the early highlights.

Educational Progress: Of the entering class of fall 1966, slightly more than half had obtained their bachelor's degrees by the time of the followup (summer 1970); another 7 percent had obtained the A.A. degree. Among those of you who had no degree at the time of the followup, only one in four had completely given up plans to obtain one. Nearly one-third had attended more than one college since 1966.

Marital Status: One in three students from the 1966 entering freshman class had gotten married by the time of the followup; of this group, fewer than 4 percent were either separated or divorced. About 10 percent had had children, and 2 percent had two or more children.

Career: By far the most popular career choice was elementary or secondary school teacher (21 percent). The next most popular choices were business executive (8 percent), college teacher (6 percent) and lawyer (5 percent). The vast majority of women students are planning to take up careers; fewer than 10 percent of them checked "housewife" as their choice.

Impressions of the College: Nearly three-fourths of the respondents reported that they were either satisfied or very satisfied with their undergraduate college. A sizable group (15 percent), however, was "on the fence," while 8 percent were dissatisfied and 3 percent were very dissatisfied. Only small numbers were unhappy with the quality of instruction (7 percent) or equipment (11 percent), but more students felt treated like "numbers in a book" (20 percent). A majority (58 percent), however, felt that school spirit on their campus was poor.

Only 12 percent of the students felt that they had had too few contacts with classmates, but twice as many (25 percent) said they had had too few contacts with instructors. About one student in five (19 percent) reported that there was not enough freedom in course selection, and one in four (24 percent) reported that there had not been sufficient outlets for creative activities. The biggest complaints were that they did not have time to get enough sleep (53 percent) and that they got too little exercise (59 percent).

Activities and Hobbies: The members of the panel showed very distinctive tastes in music. Virtually all of them (97 percent) reported listening to rock music, and two-thirds said they listened frequently (rather than just occasionally). Ninety-three percent listened to folk music, but only one-third listened frequently.

Soul music was almost as popular as folk music, but Dixieland jazz was considerably less popular than the other types: More than half (57 percent) said they never listened, and only 2 percent listened frequently.

More than one-third of the students (35 percent) reported that they had participated in demonstrations since entering college, most of them (30 percent) in protests against the Cambodian invasion in 1970. In addition, 23 percent had participated in one or more demonstrations against the college administration. When asked to characterize their political preferences, more than twice as many rated themselves as liberal (40 percent) than as conservative (16 percent). Although the trend between 1966 and 1970 was definitely in the liberal direction for your group, some students shifted in the opposite direction over the four years.

We are preparing much more intensive analyses that will emphasize how your college experiences may have contributed to changes in your attitudes and plans. If you would like to receive a report of these more detailed findings, please let us know.

The current economic situation has led to concern in many quarters over the tight job market. In consequence, we have received an unusually large number of inquiries about the employment of former students and about the proportions who plan on or are taking graduate and professional training. Because you are a member of a representative national sample of students who entered college in 1966, we should like to ask for your help within the next few weeks in completing a brief questionnaire about your present employment and educational status. Such a survey will contribute to a more accurate national picture of just what the situation actually is and, in addition, may help the policy-makers to alleviate some of the existing problems and to head off some of the potential problems.

Thank you again for your cooperation and your interest in our research.

Sincerely yours,

Logan Wilson

APPENDIX B

Special Mailing Procedures Utilized With the 1966 Cohort

APPENDIX B

SPECIAL MAILING PROCEDURES UTILIZED WITH THE 1966 COHORT*

While survey research relies heavily on use of self-administered mail questionnaires, a continuing problem has been that of obtaining a high rate of return. Various techniques have been recommended, including incentives to respondents, aspects of questionnaire design, systematic re-mailings, and use of different mail procedures. In an attempt to examine the differential impact of a number of mail techniques, a series of varying mail treatments were utilized and evaluated in the questionnaire mailing for the 1966 cohort.

Random samples of students were assigned to each of 14 experimental techniques. The variables examined were: non-profit postage vs. first class postage on the outgoing envelope; window envelope vs. matched insertion of questionnaire; postal care reminders vs. none; a second wave questionnaire vs. none; business reply vs. live stamps on the return envelope; and three types of non-profit permit. In developing the samples for the study, 14 groups of 1,000 subjects each were randomly selected from the almost 59,000 students in the followup cohort. Those students without ZIP codes were then deleted from the samples resulting in slightly different sample sizes.

Results

Table A-2 summarizes the percentage response, cost per contact, and cost per response data for 14 followup techniques. The first half of Table A-2 presents the outcomes of the various techniques prior to sending questionnaires with first class postage to those subjects whose original questionnaires were sent out at the non-profit rate and were returned as non-deliverable. It was found that the non-deliverable rate among the questionnaires which were sent out with non-profit postage was considerably higher than for those with first class outgoing postage. It was assumed that this might be due to decreased effort on the part of the postal service to forward non-profit mail, and a pilot test indicated that approximately 20% of the questionnaires previously returned as non-deliverable were received and completed by students when remailed first-class. The results of this non-deliverable remailing are reported in the second half of Table 1.

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* This description is excerpted from an article entitled "Cost-effectiveness of Differential Techniques for Mail Questionnaires" by Jack E. Rossmann and Alexander W. Astin.

First Class vs. Non-Profit Outgoing Postage

One of the major variables which this project was designed to analyze was the relative cost-effectiveness of first class and non-profit outgoing postage. The outcomes of this analysis can be determined by four comparisons in Table 1 -- Techniques 1 vs. 5, 2 vs. 6, 3 vs. 7, and 4 vs. 8.

The data provide little support for using first class outgoing postage on the initial mailing. Among the four comparisons, the differential rate of return varied from 3.0% to .2%, always in favor of first class postage. The cost per response, however, favored non-profit postage in all comparisons and the difference ranged from 9¢ to 17¢.

Business Reply vs. Live Stamp Return

Another uncertainty which has surrounded survey research is the impact of live stamps on return envelopes. It has frequently been argued that in comparison with a printed business reply return, presence of live stamps stimulates the rate of response. Comparisons of treatments 1 vs. 2, 3 vs. 4, 5 vs. 6, and 7 vs. 8 lend little support to this argument, however.

In none of these comparisons was the response rate found to increase by more than 2% through the use of live stamps. The cost per response, however, was considerably higher when live stamps were used, ranging from 17¢ to 25¢ per response above the cost for business reply returns.

Matched Insertion vs. Window Envelopes

One other decision which must be made in large-scale questionnaire mailings is whether to use matched insertion (i.e., making certain that the envelope is addressed to the person whose name is on the questionnaire which is inserted in the envelope) or to simply insert the questionnaire in a window envelope thus eliminating the necessity of matching. The additional cost of matched insertion is approximately $15 per thousand.

The effect of matched insertion can be determined by comparing techniques 1 vs. 3, 2 vs. 4, 5 vs. 7, and 6 vs. 8. Differential rates of return were small, ranging from 2.2% margin favoring matched insertion to .8% favoring window envelopes. Cost per response was also very similar between the two techniques as none of the comparisons differed by more than 5¢.

Techniques 9-14 were variations on Followup Technique 8. In other words, all of the questionnaires for these six techniques were sent out with nonprofit postage, were match inserted, and had live stamp returns. To determine cost-effectiveness, therefore, comparisons should be made with Technique 8.

Use of Auto-Typed Letter

One sample of respondents (Technique 9) received a personally addressed, auto-typed letter with their second-wave questionnaire urging them to return the questionnaire. This approach resulted in the highest rate of return (50.3%) among the 14 techniques, but it also led to by far the highest cost per response, $1.84. A 3% increased rate of response would, therefore, hardly seem to justify an increase of 50¢ in cost per response.

No Second-Wave Questionnaire

One of the lowest costs per attempted contact was achieved by not sending a second-wave questionnaire (Technique 10). This proved to be false economy, however, because the rate of response was more than 10 percentage points below Technique 8 which used a second-wave questionnaire. Thus, unless cost is a very limiting factor (the ultimate cost per response was 17¢ below Technique 8), the use of a second-wave questionnaire appears to be a very productive technique.

No Postal Card, No Second-Wave Questionnaire

Subjects in the Technique 11 cell had no further contact from ACE's Office of Research after they received the initial questionnaire. They were sent neither a reminder postal card nor a second questionnaire. While this led to the lowest cost per contact among the 14 techniques, it also resulted in the lowest rate of response. The cost per response, therefore, was essentially the same as for the preceding technique.

No Postal Card

When a postal card reminder was used without a second-wave questionnaire, it had a slight positive impact on rate of return (Technique 10 vs. 11). When used in conjunction with a second-wave questionnaire, however, it had no positive effect, and may actually have discouraged some subjects from returning the questionnaire (Technique 12 vs. 8).

Type of Non-Profit Permit

Techniques 8, 13, and 14 make it possible to determine the impact of using three different types of non-profit permits--printed; pre-canceled stamps; and meter. The data show that the differences were small, but there was a slightly higher rate of return from the group whose postage on the outgoing envelope consisted of pre-canceled stamps.

In addition to the 14 experimental treatments outlined above, two other techniques were studied. A one-page newsletter, summarizing data which had been obtained from this cohort of students prior to 1971, was sent to all but a sample of 2,262 students approximately two weeks before the questionnaires were mailed. It was hoped that the newsletter would have both public relations value and serve as a means of updating addresses before the questionnaires were sent.

A comparison of newsletter recipients and non-recipients suggests that the newsletter was at least partially successful. The rate of questionnaire return was approximately seven percent higher among the newsletter group.

One additional technique was tested during the second-wave questionnaires, half were sent with first class postage, and the other half (randomly selected) went out with non-profit postage. The results confirmed the findings reported earlier. The rate of response was slightly higher for the first-class postage group (between 3 and 4%), but this small improvement in response rate would hardly seem to justify the considerably higher postal costs.

Conclusion

Overall, the findings suggest that, among the techniques used (with one or two exceptions), "cheapest is best" or at least most effective. Use of non-profit outgoing postage, window envelopes, and business reply returns resulted in considerably lower costs per contact and per respondent and did not result in significantly lower rates of response. Some problems of non-deliverability were encountered for those questionnaires which were sent out with non-profit postage, but by remailing them with first class postage, the response rate was made roughly equal to that group whose initial questionnaires were sent with first class postage and the cost per response remained lower for the non-profit group. Use of a second-wave questionnaire proved to be a very effective technique for increasing rate of response, but the use of a followup postal card and various types of non-profit postage had little impact.

While this study has examined a number of followup techniques, there are others which were not anlayzed: length of questionnaire, item sensitivity, kind of cover letter appeal, and means of obtaining responses from "hard-core" non-respondents. Thus, while other data are needed, this study appears to suggest that some cost-cutting techniques can be used without seriously jeopardizing rate of response to mail surveys.